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To Certify Your Services

A study of the market for certification in Northern European service sectors



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Executive Summary

This report contains a study of the market for certification directed towards the service sectors in Northern European countries. To our knowledge this study is the first of its kind. The project aims to contribute to a well functioning market for trade with services in the Nordic countries and Europe. The study is a part of the project "Nordic platforms for better trade in services" initiated by the Nordic InnovationsCenter.

The need for certification has been thoroughly recognized by the EU, and has been implemented in EU policy through the EU Services directive. Article 26 (1a) states that : *"Member States shall, in cooperation with the Commission, take accompanying measures to encourage providers to take action on a voluntary basis in order to ensure the quality of service provision, in particular through use of (..) certification or assessment of their activities by independent or accredited bodies."*

The study should be regarded as closely related to the survey "Certification and Marks in Europe" (Consumer Research Associates, 2008), commissioned by EFTA. That study focus on the goods area, and concludes that certification and marking in Europe is a confused market. They find that certification of the same product often needs to be repeated in several countries, generating trade barriers, extra costs for producers (especially SMEs) as well as confused consumers and less transparent markets.

In realising the huge potential for growth in services, the potential risk of negative effects due to national level certification schemes is also significant for services. Consequently, precautionary actions to prevent a similar situation in the service area should be taken. In this study we find that the number and proliferation of certification schemes directed towards services is still relatively limited. However, there is already signs of confusion within the market for environmental certification due to the existence of a variety of environmental labels with different requirements and meanings. To avoid a situation with inefficient use of certificates in the service sectors, it is important that coordinating measures are put into action. Our analysis indicates that the authorities have a potentially important role to play in this respect.

Main findings emerging from the study

Descriptive results from the interviews

In the survey we identify nearly 37.000 service certificates issued within 83 certification schemes. Nearly $\frac{3}{4}$ of the certificates issued, and $\frac{1}{4}$ of the certification schemes identified are “generic”, implying that they can be applied to many kinds of services. Furthermore we find that half of the 83 certification schemes identified were cross-border, applied in more than one country. The other half was at national levels. We also find that most of the certification schemes directed towards services are not part of the EA multilateral agreement. This implies that there is a clear risk that companies are required to involve in additional certification activities to operate across borders.

Sector and regional specific findings

‘Leisure services’ is the sector with the fewest certificates. This is partly because of its relative small size compared to the total economy, and partly because of the nature of leisure services, which makes them harder to standardize. The by far largest number of schemes is found within environmental certification. Furthermore, while some schemes are said to be complementary, many are in direct competition. The existence of many relatively similar schemes may be unfortunate as it may lead to confusion among consumers and extra costs for the companies.

Somewhat surprising we find that Lithuania and Estonia are the North European countries with most accredited certification of services relative to the size of the economy. This is particularly due to a high number of certificates in the construction sector.

Costs of certification

We have three main findings relating to costs. First, we find that certification costs vary significantly between countries. Secondly, we also find that the net benefit of certification could be negative for small service companies. Thirdly, we point to the fact that there is an extra cost related to becoming part of the system for mutual recognition across countries (EA MLA).

Broad trends regarding certification of services

Most of the certification bodies reported that the share of certificates issued to the service sector is growing, and that they expect certification of services to play an increasingly prominent role of their business in the future. The most important factors for certification schemes to be internationally recognized is that they are based on an international standard, that the scheme is accredited, or/and that the certification body has subsidiaries abroad. Our econometric exercise shows that more

certificates in a country lead to more export, while reducing imports. The exercise furthermore shows that government facilitation of certification has a positive effect on service trade.

Conclusions and Recommendations

The study identifies large variations in certification costs between countries for similar certificates. Along with a more active policy towards mutual recognition, one should expect a harmonization of prices across countries.

The results from our statistical study indicate that to promote international trade in services, governments should invest efforts in order to strengthen their policy towards harmonization and recognition of certificates. Specifically we believe that the government could play an important role in pushing for a clarification on which certification schemes are part of the EA multilateral agreement between the national accreditation bodies. With this said, the result from our study shows that it is important that authorities aim their “certification facilitation” effort at services where there is a need and potential for internationally harmonized standards and certification schemes. Moreover, in the process of developing the market for certification of services we believe there should be more focus on certificates issued within existing schemes, rather than on developing new certification schemes.

Definitions

Standard: Documented voluntary agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that materials, processes and services are fit for their purpose (ISO/IEC Guide 2:2004). Standards usually form the basis for certification schemes.

Certification: Third party attestation related to services/products, processes, systems or persons (EN ISO/IEC 17000:2004).

Accreditation: Third party attestation that the **certification body** is competent to issue certificates according to a specific standard. Accreditation is performed by national accreditation bodies, for which there exists one in each country.

Abbreviations

NICe: Nordic InnovationsCenter

EA: European co-operation for Accreditation

IAF: International Accreditation Forum

ISO: International Organization for Standardization

CEN: European Committee for Standardization

1. Introduction

This report contains a study of the role of certification in the market for services in Northern Europe. The study was conducted during the period May to October 2008 and is a part of the project "Nordic platforms for better trade in services" initiated by the Nordic Innovation Center. To our knowledge this study is the first of its kind focusing on certification in the service sector. The project aims to contribute to a well functioning market for trade with services in the Nordic countries and eventually the whole of Europe.

The study should be considered as closely related to the survey "Certification and Marks in Europe" (Consumer Research Associates, 2008), commissioned by EFTA. That study focus on the goods area, and concludes that the certification and marking in Europe is a relatively confused market. They find that certification of the same product often needs to be repeated in several countries, which implies trade barriers, extra costs for the producers (SMEs) as well as confused consumers and markets.

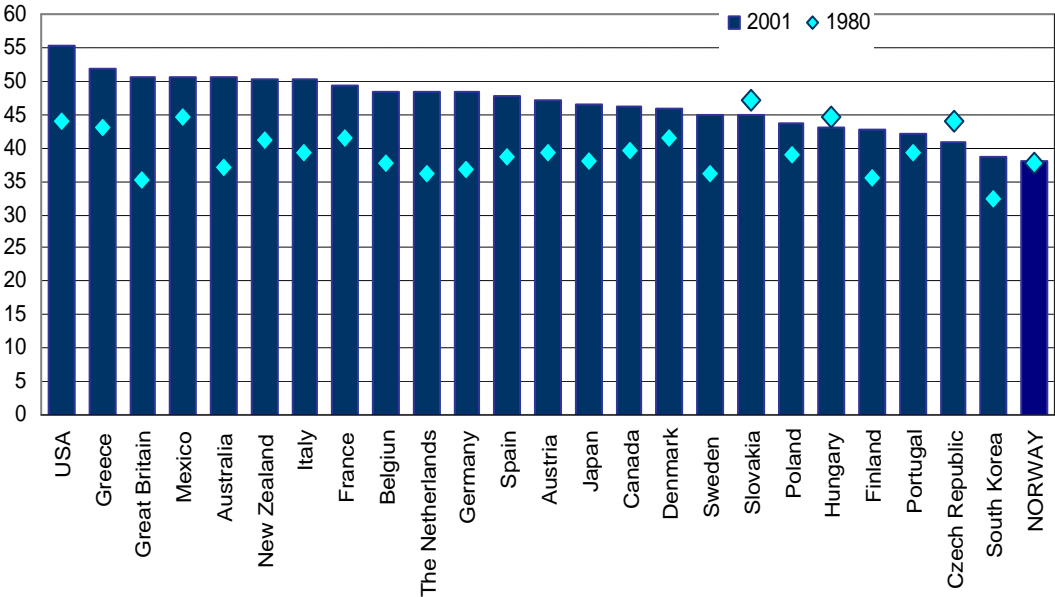
We were given the following research mandate:

- Identify approximately 30 certification bodies with strong relevance for the service sectors
- Provide a review of what kind of services their certification schemes are aimed at, based on a systematic typology of services
- Provide a mapping of the extent to which these schemes are national or international in scope
- Make a review of costs associated with certification directed towards service providers
- Identify the benefits of mutually recognized certificates across borders
- Provide a mapping of future expectations among certification bodies which focus on the service markets.
- Provide an empirical mapping of the development in turnover among certification bodies in Norway and Sweden.
- An impact study, identifying the effects of certification activity in Northern Europe on cross border service trade

To our knowledge, this study of service sector certification is the first of its kind. There exists a large literature on standards, including several papers focusing specifically on services, but none of them concentrate on the whole market for certificates directed towards providers of services. It must be emphasized that it is impossible to study certification activities without discussing standards. These are strongly tied together as certifications usually are based on specific standards developed by institutions like ISO (International Standardization Organization), CEN (European Committee for

Standardization) or national standardization bodies.¹ This does however not capture the whole picture. What we “label” as certification bodies (the agencies that issue certificates), also provide certificates based on a wide variety of norms, criteria and more or less formal conformity assessments which are not part of the formalized standardization world. Keeping this in mind, one has to realize that a study of certification in the service sectors must embrace a wide variety of activities. Hence, it is our ambition to display this variety in the North European countries defined as UK, Germany, Poland, the Netherlands, the Baltics and the Nordic countries.

Figure 0: Value added in market based services as % share of GDP



Source: OECD

Strong income growth in Europe over the past decades has led to a growing share of overall demand directed towards services. Over time, firms have chosen to concentrate resources on core activities, outsourcing important services. This trend has increased the market for externally produced services. Today, services account for more than 2/3 of economic activity in most European countries, and market based services represent at least 40% of the economy (see Figure 0 for the OECD patterns).

¹ Notice that many standards are not certifiable, and are consequently not within the scope of our typology of standards. Typical examples are terminology standards within services but also many non certifiable standards within e.g. finance.

Technological progress has facilitated more service trade over longer distances and between new countries, offering new services to new markets. Stronger international cooperation and liberalization of international trade opens new markets and creates new competitive challenges for service producers. Today, service trade represents approximately 20% of all cross border trade.

But there are still strong natural impediments to trade in services. For instance, since many services are highly heterogeneous, it is hard for consumers to evaluate their quality. Also, many services require simultaneity in production and consumption, consequently involving travelling for either the service provider or service consumer. It follows that the quality of the service cannot be evaluated before it is consumed. Certification schemes can help to overcome the information problems. Yet, if certificates are to promote cross border trade in services, it is also required that the certificates are recognized across borders.

The need for certification has been thoroughly recognized by the EU and has been implemented in EU policy through the EU Services directive. Article 26 (1a) states that : *“Member States shall, in cooperation with the Commission, take accompanying measures to encourage providers to take action on a voluntary basis in order to ensure the quality of service provision, in particular through use of (...) certification or assessment of their activities by independent or accredited bodies.”*

Notice that according to the Services directive, services are to be traded freely between member countries, given that such trade does not endanger the environment, public security, public health or compliance with labor law (according to article 16 (1b) in the Service directive). A potential important future role for certification bodies in Europe will be to verify that service companies are not a danger to these elements. Such certificates may vastly ease the cross border operations of service providers.

It is hard to find a uniform definition of certification. The closest you get is the ISO description of service certification based on the ISO standard ISO/IEC 17000:2004: *“Third party attestation related to products, processes, systems or persons”*.

Moreover, ISO describes conformity assessments in the following way: *Products and services are like promises. Business customers, consumers, users and public officials have expectations about products and services relating to features like quality, ecology, safety, economy, reliability, compatibility, interoperability, efficiency and effectiveness. Conformity assessment means evaluating and confirming such features as defined in standards, regulations and other specifications. In this way, conformity assessment makes sure that products and services deliver on their promises.*

The third party attestation role is pivotal but not always followed strictly by certification bodies. In order to be regarded as trustworthy and neutral, there is no room for joint interests between the certifier and the certified. To ensure that the third party role is taken seriously, a formal system of accreditation has been established which almost exclusively is organized at the national level. We have devoted a lot of attention to the role of accreditation of certification schemes in this study.

To narrow the scope of the study, we do not analyze the roles of public authorizations, licenses and formal educational programs. In other words, the report is confined to voluntary arrangements or assessments of conformity. Nevertheless, a significant number of voluntary certificates are eventually turned into compulsory certificates driven by government demands. And even more certificates become *de facto* compulsory as a consequence of strong market demands. We explicitly discuss the effects of such processes.

One may claim that services are produced in all sectors of the economy, be it agriculture, manufacturing industry or energy production. This claim is based on the notion that the concept of services describes all activities that serve as inputs in the generation of a product. However, we have limited the study to the service sectors, where the final product is intangible and non-physical. These activities represent approximately 70% of all economic activities in industrialized countries. Hence the limitation is rather loose. Notice that we also disregard the certification of tools and physical objects used in service providing process.

The line between certification, classification and rating is not well defined. In general, we have not touched upon classifications like Moody's credit rating, yet we have included classification schemes related to some services sectors, e.g. hotels.

There are companies which seek certification according to a specific standard, and companies which follow the standard without getting any third party verification of it. We do however not know the ratio between the two. While there exist data on the number of certificates for the service sector, it is hard to find the number of service companies using the standards without certifying it. Standardization bodies we have talked to tend to believe that the group of companies which use the standard without certifying it is much larger than the number of certificates issued. This is perhaps a consequence of standardization processes not focusing on whether the standard will be used for certification or not. Others however claim that the largest value of implementing a standard is the signaling effect the companies get from being certified, implying that most companies would choose to certify.

In the survey, we find that the number and proliferation of certification schemes directed towards services is still relatively limited, but the market has a strong positive momentum.. However, there is already a tendency of confusion within some submarkets for certificates, due to the existence of a variety of certificates with different requirements and meanings (e.g. in the markets for environmental certificates). To avoid a situation with inefficient use of certificates it is important that coordinating measures are put into action, especially on the cross national level. Our analysis indicates that the authorities have a potentially important role to play in this respect.

One important finding is that service specific certification schemes are hardly ever accredited. As a result, it is hard to gain international recognition for your certification services. We find that certification bodies partly solve this problem by organizing in international certification networks. Alternatively, they cooperate with alternative accreditation bodies.

The study also shows a growing tendency of certification bodies to build specialized versions of the generic certificates in order to meet specific demands. The majority of respondents in our survey reported that their certificates faced competition from alternative certification schemes that are not completely compatible. This is especially so if you look at parallel certificates in different countries. The survey revealed that in many countries, firms experience that local certificates are required in order to be awarded contracts through public tenders. This is signaling that a significant number of certificates are treated as compulsory although there exist no formal regulation.

The survey identified large variations in certification costs between countries for similar certificates. Such price wedges can only exist as long as similar certificates issued in different countries are not recognized across borders. We have organized the analysis around 5 specific service sector sub-groups. We expected to find that the group of problem solving services, which contain a lot of highly heterogeneous service providers, would be less involved in certification activities. However, this appeared not to be the case. Providers of leisure services are on the other hand much less involved in certification activities. This may reflect the need among these firms to maintain a high degree of heterogeneity, signaling uniqueness.

We found that countries with a high certification intensity among service providers, tended to export more and import less. This may indicate that certification promotes competitiveness in domestic markets, which contributes to strengthen the ability of domestic firms to outcompete firms from other countries. Reduced import as a consequence of more certification may also be explained by the fact that certification may keep foreign competition out of the domestic market due to additional entry costs. The study also shows that a more certification friendly climate, where the government

invests more in facilitating the use and recognition of both national and international certificates, contributes to increased trade.

The study is separated into 3 parts. Part 1 describes the world of services and certificates. It starts out with a survey of the most relevant studies of the certification markets (chapter 2). Chapter 3 contains a description of the service sector according to a typology that divides the sector into relevant sub-groups. Chapter 4 describes the universe in which certifications in Europe operate, both in terms of structure and numbers. Chapter 5 contains a discussion on the pros and cons of certification.

Part 2 is devoted to the survey. It first runs through the methodology and the research questions (chapter 6). In chapter 7, we present the certification bodies included in the survey and the certification schemes they administer. Chapter 8 contains a description of the cost structures applied in the certification industry, while chapter 9 is devoted to identifying the determinants behind the internationalization of certification schemes. The survey part is concluded with a chapter on future prospects for the certification market towards the service sector (chapter 10).

In part 3 we focus on the impact of certification activities on cross border service trade in Europe. We end the study with a short concluding chapter which also contains some recommendations for future policy.

2. Literature on service certification

There has been devoted limited research to the topic of certification of services. In a study by Blind and Hipp (2003) on certification according to the ISO 9000 standard for innovative German service companies, they find that large companies are more likely to implement and certify according to the standard simply because of the high costs. They also find that the certification for service companies according to the ISO 9001 standard serves as a quality seal for customers in markets with homogeneous products (services) of average quality.

Certification of ecotourism is a field which has received some interest internationally. This type of certification falls into the sector which we refer to as “leisure services”. Much of this literature evolve around what seems to be the returning problem of small companies that want to become certified – the costs of having a certificate based on a credible auditing process is too high. The article “Ecotourism Certification Criteria and Procedures: Implication for Ecotourism Management” is

written by Margo Sallows and Xavier Font². They found that less than 1% of all tourism operations worldwide are involved in certification. Furthermore, they argue that the relatively small proportion of certificates within the tourism sector indicate that eco-tourism certification does not give the companies a comparative advantage in competition with uncertified firms. They also state that the majority of ecotourism certification schemes only survive as long as they receive cash through donors or external funding, typically from governments or NGOs. Similar conclusions are drawn by Haaland and Aas (2006) in their report on certification of tourism. They focus on three specific cases of ecotourism certification schemes. One of their conclusions is that the requirement of a third party evaluation (accreditation) of the certification schemes is a cost driving element which small enterprises cannot afford. They also discuss whether environmental schemes within the tourism sector has a real effect on the environment, or if it is purely a “green wash” of the activity for signaling purposes. They conclude that environmental labels potentially have a real effect on the environment, and that one should avoid having multiple competing labels.

Contrary to other studies which focus on costs as the main problem for certification for small and medium sized companies (SMEs), Hillary (1999) concludes that the internal barriers to formal implementation (certification) of environmental management systems for SMEs are in fact larger than the external. While internal barriers refer to parameters such as lack of human resources and information about the benefits of certification, external barriers refer to parameters such as costs of implementation and costs of certification. In Chapter 8 on costs of certification we discuss the general difficulty with costs and certification for small companies in light of the findings from our survey.

In a report from the EC Directorate General for Enterprise policy (2004), focus is directed towards how public policy initiatives might promote the use of environmental management systems in SMEs. They identify a series of existing “good practices”. These good practices are categorized within five types of public policies which form the basis for the recommendations on what authorities, often in cooperation with stakeholders, might do to facilitate the adaption of environmental management systems in SMEs. Some of these recommendations are “push” factors such as direct subsidies and information provision. They also list “pull” factors such as raising the public awareness of the importance of implementation of environmental management systems (EMS).

In his study “Standardization and the service sector – An explorative study”, Knut Blind (2003) conducts an extensive empirical research project on service standardization³. The aim of the study is

² This article is published as Chapter 5 in the book on Ecotourism by Dimitrios Diamantis.

³ <http://www.isi.fhg.de/publ/downloads/isi03b30/standards-service-sector.pdf>

to assess the role of standards in the service sector, based on the recognition that the availability of voluntary standards for services lags considerably behind the economic importance and potential of this sector. The study has been important for how current work on service standardization is organized within the European standardization body (CEN) as well as the national standardization bodies. Based on an on-line survey of 364 European service companies, Blind introduces operational categories of formal and informal standards in the field of services. Blind identified five clusters of service standards: "Service Management", "Service employee", "Service delivery", "Customer Interaction", and "Data Flows and Security". The results show that the most frequently used category of service standard is the "Service management". Blind points out that this corresponds well with the common perception that the ISO 9001 (quality management system) is the most important standard, and the fact that environmental management systems, such as the ISO 14001 and EMAS, are frequently applied by service companies. As one of his recommendations, Blind suggest that the prices of service standard documents should be lower. He emphasizes that the service sector is characterized by many small and medium sized companies (SMEs) which may not afford to purchase and implement the standard. As we will see, this argument is even more relevant in relation to *certification* of SMEs, as discussed in Chapter 8 of this report.

Part 1

The world of services and certificates

3. The Service Industry: A useful typology

In most European countries, the service sector represents more than 2/3 of national economic activity and employment. In other words, the service sector is by no means a uniform entity of activities. On the contrary, services span over a wide variety of activities, as different as cleaning services, telecom, dental care, shipping, energy supply and investment banking. It is much harder to find patterns that identify common grounds than patterns illustrating the vast heterogeneity within this sector. Consequently, there exist numerous attempts to divide the sector into appropriate subgroups according to alternative characteristics (e.g. skill levels, tradability across borders, public/private provision etc.). Normally, most services are characterised by being immaterial, inseparable, hard to standardise, and non-durable. Yet, these “common” characteristics are not common for all services.

- The *immaterial nature* of services follows directly from the fact that services are activities and not tangible products.
- Many services are *non-storable* and *non-durable*. When an aircraft departs, it is too late to sell out more of your capacity. For airliners, hotels, ski resorts and concert organisers, profitability is highly sensitive to the rate of capacity utilisation. However, several services are more durable as the output or value of a service is more easily storable over time.
- In a large proportion of services provided in the economy, production and consumption have to be conducted *simultaneously*. In that case we say that the service is *inseparable*. This characteristic is especially relevant in the cases where the service is performed on the consumer himself, like hair-dressing, education, and restaurant services. Electronically based services like e-trade, financial services and telecom are on the other hand highly separable.
- The limited ability to standardize services, service production processes and distribution is driven by the vast *heterogeneity* of services.

Certification is closely related to standardization. Services that are highly heterogeneous in nature (e.g. business consulting, engineering services and medical services) are often harder to standardize, and consequently harder to approach from a certification perspective. Moreover, one would expect that services which are more homogenous in nature (e.g. telecom and banking services, cleaning services and transport) are more frequently subject to standardization and thus more relevant for

the certification market. Based on this pivotal aspect of services, we have developed a typology that enables us to separate different kinds of services into distinctly different groups with strong relevance for the certification industry. Notice that the degree of heterogeneity within a specific type of services is strongly linked to the way the services develop over time due to innovation. Providers of services that maintain a high degree of heterogeneity most often focus on product innovations, improving the features and quality of the service. Among providers of more homogenous services, more attention is devoted to process innovations, improving productivity and profitability.

Services are what services do: A new typology

Our service sector typology is based on the logics of value creation in the service sector (see Grünfeld et al 2005, for a more thorough discussion on the typology). The typology is linked to how different service producers create customer value. Keeping this in mind, we generate a simple typology based on services that display a high degree of similarity with respect to the degree of heterogeneity and the ability to standardize activities. In addition, the customer value approach also highlights the differences in skill requirements, as well as the emergence of a fast growing leisure service sector. Our typology is based on the international NACE 5 digit industry classification system. Thus it is fully compatible with existing industrial statistics. For more on which nace sectors that sort under each group, see Appendix 1.

The typology contains the following four service groups:

- **Problem solvers** who create value by solving specific and unique problems for their customers. There is a low degree of standardization among these services. To a large degree such suppliers provide services that the clients are not able to produce themselves. Law firms, medical doctors, engineers, architects, and researchers represent typical examples of problem solvers. The services are highly knowledge intensive and display small economies of scale.
- Producers of **assisting services** generate customer value by taking over time consuming activities for firms and households that are easy to standardize. Security services and cleaning services are typical examples of such activities. The services are less knowledge intensive and display moderate economies of scale.
- Producers of **distributive services** generate value through the facilitation of interaction between customers, for instance by selling goods and transporting commodities, passengers and information. A large sub-group of distributive service providers operate predominantly through digital channels, like providers of telecom services and financial services. Due to the large scale and productivity effects of operating in digital channels, one could split the

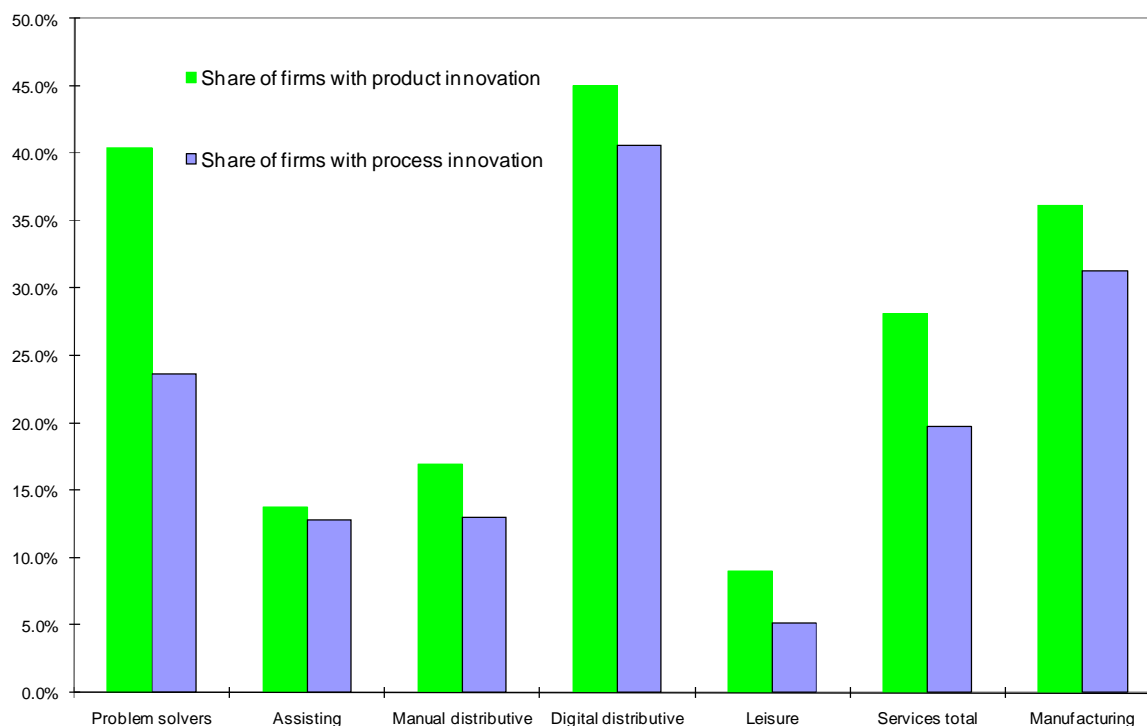
distributive service providers into **digital** and **manual** distributive service providers. The services are relatively easy to standardize. Digital distributive services are predominantly skill intensive, while manual distributive services are less skill intensive.

- Producers of **leisure services** generate values by stimulating the emotions, perceptions and spiritual experience of customers. Leisure services are highly heterogeneous and represent activities like sports, arts, entertainment, restaurant services and media services. The services are moderately skill intensive

In addition to these 4 service groups, we add construction services that represent a large variety of activities, all related to the same type of physical output.

The problem solvers and the providers of leisure services develop their services by improving the features and content (heterogeneity and distinction) of the service and strengthening the quality. This is also the case for providers of assisting services and distributive services, however, within these groups, productivity and scale economies play a more pronounced role. Consequently, one would expect that problem solvers and providers of leisure services focus stronger on product innovations, while the two other groups focus more on process innovations. In Figure 1, we present the innovation patterns for Norway, clearly giving support to the predicted patterns.

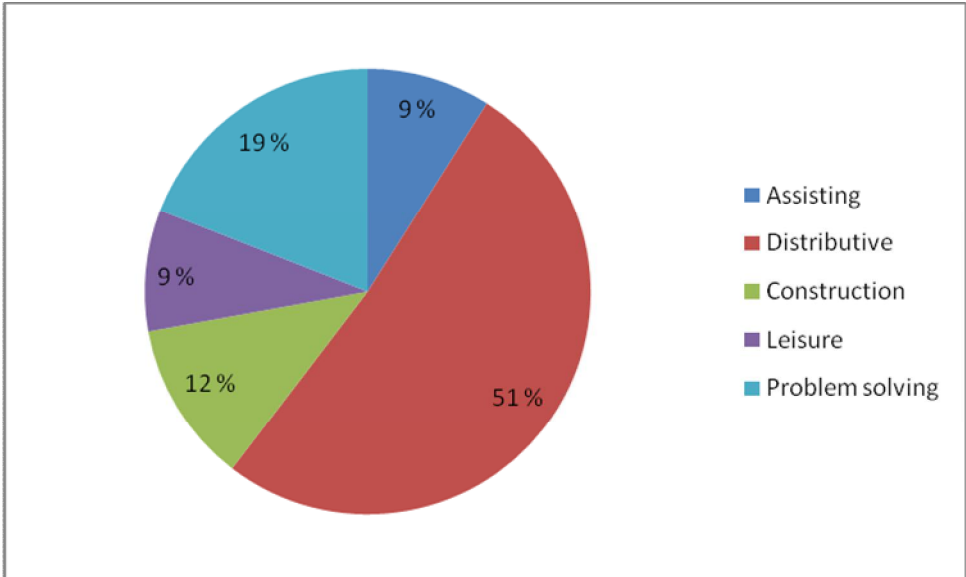
Figure 1: Service sector typology and focus on product and process innovations in Norway



Source: MENON Business Economics

A comparison of the size of these five service groups in Norway (see Figure 2) shows that *distributive services* is the largest, employing approximately 50% of the service sector work force. Problem solvers represent the second largest group, employing 19% of the service sector work force, followed by the construction sector. Assisting services and leisure services both employ close to 10%. Notice that producers of assisting services and leisure services have experienced strong growth. Producers of distributive services, on the other hand, have faced decreasing or stagnating employment.

Figure 2. Distribution of employees according to our service typology (Norway, 2004)



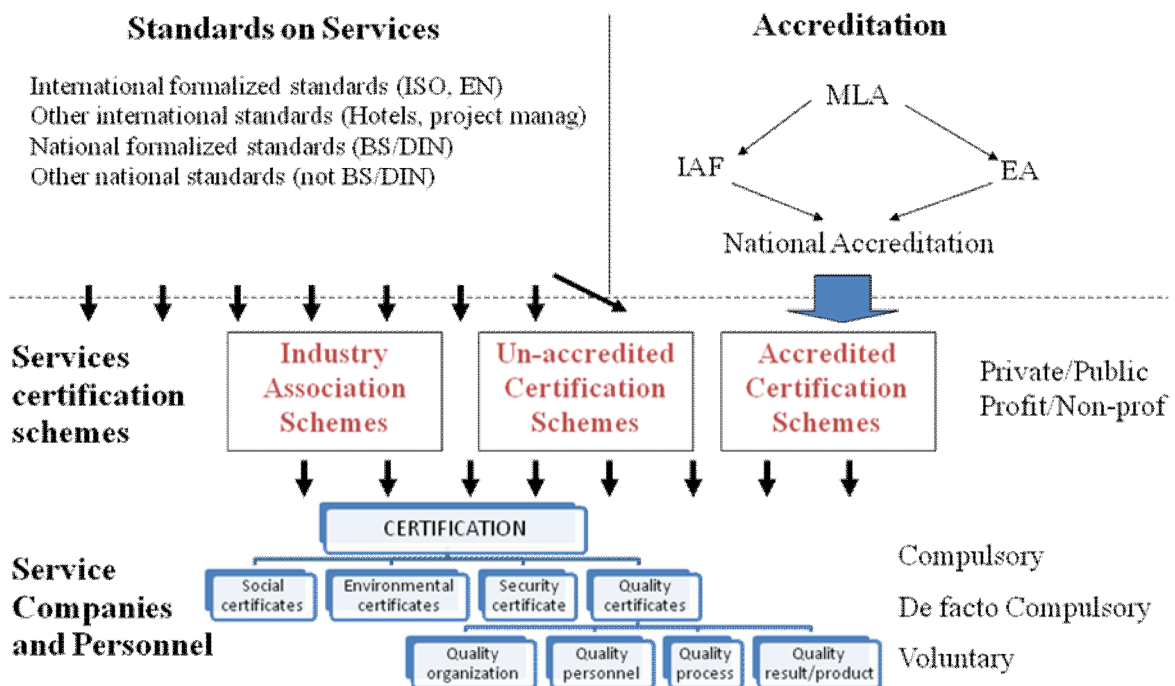
Source: MENON Business Economics

The differences between the five service groups can also be illustrated by firm size. Digital distributive service providers and assisting service producers are overrepresented among the largest firms. This is clearly due to the scale advantages in these sectors. The presence of strong heterogeneity among problem solvers and leisure service suppliers curbs their scale advantages. Thus a smaller proportion of these firms become really large.

4. The Certification Universe

The world of certification activities (or conformity assessments) is complex and unfamiliar to ordinary people, as it is to most academics, business representatives, politicians as well public administrators. It is a bad idea to start analyzing the effects of certification activities on the economy as a whole and international trade in specific, without first trying to identify different kinds of certificates, and how they relate to the world of standards, accreditations etc. In Figure 3, we present a map which is designed to do this job. This chapter is fully devoted to explain and discuss this map.

Figure 3: The universe of certification, standards and accreditation



4.1. Standards

Before we start describing certification activities, it is necessary to start out by focusing on the role of standards. In our framework, all certificates are linked to a standard, being more or less formalized.⁴

ISO (International Organization for Standardization) defines standards as:

⁴ One may claim that certification activities do not solely relate to standards. Documents with criteria, conformity documents and behavioral norms are alternative concepts often applied by certification bodies. For

Documented agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that materials, products, processes and services are fit for their purpose.

Documented rules and guidelines form the basis for most certification schemes. In order to certify something, e.g. a company or a person, you need objective criteria which the certification is based on. In this study, the question of whether a standard is applied internationally, nationally or simply by selected agents, is of utmost importance. These features are believed to explain why some certification schemes become national or international in scope. Consequently, we separate standards into four groups: In the top left corner of Figure 3 we present the groups:

By ***international formalized standards*** we refer to standards published by the large international standardization bodies such as ISO and the European Committee for Standardization (CEN). These are widely recognized standards applied by companies and certification bodies all over the world. An example is the INSTA 800 which is a Nordic formalized standard for benchmarking and assessment of industrial cleaning quality⁵.

By ***other international standards*** we mean standards which are applied at an international level, but which has not been issued by a standardization body. These standards are typically made by an internationally operating certification company (e.g. ECDL), or an international industry association (e.g. ICFO).

National formalized standards are standards made and published only by national standardization bodies. Many international formalized standards start of as national standards.

Other national standards are separated from *formalized national standard* since they are not published by the national standardization body. This category contains a large variety of standards. For instance, standards made and applied by a national trade association and standards made and controlled by a specific, or a group of certification bodies.

presentational purposes, we lump all these concepts together under the wide umbrella “more or less formalized standards”.

⁵ INSTA refers to standards based on Nordic cooperation. The reason why the Nordic countries decided to cooperate on a Nordic standard is allegedly due to the common characteristics of the cleaning industry in the Nordic countries. Although the standard was intended to be suitable for certification of providers of cleaning services, the demand for such certification has yet to materialize.

Standardization work on services at the European Committee for Standardization (CEN)

In October 2003, the first programming mandate on standardization of services (M/340) was delivered to CEN, CENELEC (European Committee for Electrotechnical Standardization) and ETSI (The European Telecommunications Standards Institute) in October 2003. The mandate was presented by the European Commission (EC), and was issued as they were working on finishing up their first proposal for an EU services directive. In the programming mandate, CEN, CENELEC and ETSI were invited to develop a standardization work program to support the internal market for the service sectors. The mandate is in line with Art 26 (5) in the Service Directive which says that “Member States, in cooperation with the Commission, shall encourage the development of voluntary European standards with the aim of facilitating compatibility between services supplied by providers in different Member States, information to the recipient and the quality of service provision”.

Moreover the programming mandate emphasized specifically that the work program from CEN on standardization must reflect needs in the market, and that it should take account of all relevant specifications and standards currently available or being prepared within the service field. About one and a half year later, in March 2005, CEN delivered their Final Report on the EC Programming Mandate M/340. In the report CEN summarized previous and ongoing work at national and European level within service standardization. In addition, CEN launched the “Service standardization strategy”, which is a bottom up approach where all national standardization bodies (NSB) should bring standardization projects for services to the European level.

The same year, the EC launched its second programming mandate to CEN where it pointed out the need for further work on sectoral and horizontal standardization of services. Horizontal standards are generic standards that apply to all service categories. In response to the second mandate from the Commission, CEN has launched a series of projects of which CEN’s Horizontal European Service Standardization Strategy (CHESSS) is the largest (see Chapter 10 for more on this initiative)

4.2. Certification schemes

We now turn to the middle part of the map (figure 3), containing certification bodies and their “*certification schemes*”. Such bodies represent the core of this study. One certification body may run a series of certification schemes, each issuing separate types of certificates. For instance, the German certification body DQS runs close to 70 certification schemes. Still, it should be noticed that the number of existing standards is far larger than the number of certification schemes. At a presentation by Knut Blind at the Bundesministerium für Wirtschaft und Technologie he could tell that out of a total of 134 available formalized standards (national and international) within the service sector in Germany, only 16 of these standards (12%), were used for certification purposes.

The certification bodies issue certificates which verify that the requirements in a standard are complied with. In the ISO standard 17000, certification is defined as:

Third party attestation related to products, processes, systems or persons.

In Figure 3 we have separated certification schemes into three different groups:

- 1) Accredited certification schemes,**
- 2) Un-accredited certification schemes, and**
- 3) Certification made by industry organizations.**

In our sample of 30 interviewed certification bodies, 16 offer accredited certifications, 8 offer purely un-accredited certification services, while 6 are trade associations offering certification to members.

4.2.1. Accredited certification schemes

An accredited certification scheme is a scheme that has gained a third party verification of its quality. In other words, accreditation is basically a certificate issued to the certifier. This third party verification is awarded by a national accreditation body for which there is one in each country.⁶ Below we look closer into how accreditation activities are organized.

4.2.2. Un-accredited certification schemes

Un-accredited certification schemes have not been attested by a third party (accreditation body). By saying *un-accredited*, we mean that these schemes are not accredited by any national accreditation body which is a member of the international organization EA or IAF (see below for more on these institutions). Accreditation is not a crucial matter for all certification bodies. Yet, if the certificate is not perceived as credible, the certification will be worthless. Many of the certification bodies that offer *un-accredited certification schemes* emphasize that they are subject to other forms of third party approval, or recognition by an authority. In practice, there are two groups of certification bodies that provide un-accredited schemes.

The first group typically aims for accreditation of all their certification schemes, where the schemes relate to either national or international formalized standards. But for some reason the accreditation body does not accredit that particular certification scheme. One important reason which came up in our interviews, is linked to the fact that the certification body had made a standard themselves (a so

⁶ The exception here is Germany where there are five accreditation bodies working with management systems (DAP, GA-A, GAZ, KBA and TGA), while GA-A, GAZ and TGA also accredit certification of personnel, operating in the same way as accreditation bodies. These bodies are however coordinated through membership with the Deutscher Accreditierungs Rat (DAR).

called private standard), which the accreditation body was not familiar with it. Another reason is simply that the accreditation body has not dedicated resources to gain the accreditation competence on that particular standard, possibly because there are too few certification bodies demanding accreditation for the scheme. From conversations with accreditation bodies such as DANAK, FINAS and UKAS it is clear that the demand for a specific accreditation must be above a certain threshold before it is financially sound to offer it. This is probably one the reasons why there hardly exists any accredited service specific certification schemes.

The second group of un-accredited schemes comes from a highly heterogeneous group of certification bodies with the common characteristic that they usually certify according to a standard not published or recognized by a standardization body. These standards are what we previously categorized as *other international/ national standards* or *certifier specific standards*.

4.2.3. Certification made by trade associations

Certificates issued by trade associations are normally in the form of requirements for being a member in the organization itself. In order to become a member, the company must for instance document that it employs qualified personnel, that its activities are performed in compliance with legal occupational health and safety (OH&S) requirements and that it can document tax payments. This type of certification schemes relates to what we label *other national standards*. Some will claim that such schemes rarely represent a certification. However, since they are constructed to signal certain characteristics of their members, they are clearly substitutes for the typical certification scheme. Thus, we find good reason to include them in our study.

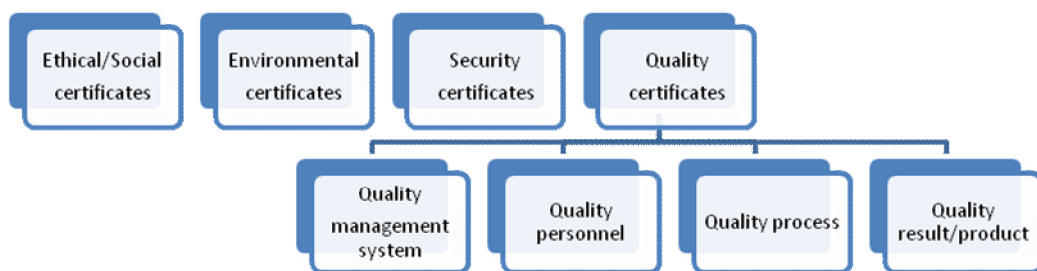
4.2.4 Profit or non-profit / Compulsory or Voluntary

Our sample of certification bodies was equally distributed between profit and non-profit. 16 out of 30 certification bodies interviewed were non-profit. Non-profit in this context usually means that the certification body does not distribute dividends, but reinvests any profits in its own activities (foundations). Certification is an activity on the borderline between public and private. Still, from our survey only three of the certification bodies are public institutions. However, even though most of the certification bodies were run as private firms, many of them are partly owned by the government.

4.3. Types of certificates

The universe of certificates applied in the service industries is large and heterogeneous. Nevertheless, it is fully possible to separate the different types of certificates in broadly defined groups. We have combined the categorization of standards by Blind (2007) and our own more detailed categorization. As a result, we identify 4 main groups and 4 sub groups under quality certificates that together cover close to all types of certificates we have identified (see Figure 4).

Figure 4. Types of certificates



Source: This Figure is inspired by a presentation of Knut Blind at a workshop for BMWi

Ethical and social certificates are gradually becoming more popular as issues like social corporate responsibility climb on the public agenda. The SA 8000 certificate on social accountability is typical example within this group. Environmental certificates are dominated by the ISO 14001 standard on environmental management systems, yet there is a series of other certificates focusing on the environment in the countries we look at (e.g. the Eco-Lighthouse (Miljøfyrtårnet) certificate). Security certificates are designed to ensure that firms implement security routines and systems. The ISO 27001 Security management systems standard forms the basis for a large number of such certificates.

The group Quality Certificates is split into 4 subgroups which in many circumstances tend to overlap. Quality management systems certificates focus on how the firm has organized its activities, including its customer relations management and how the organization keeps control over the quality of its services. The most important one is the ISO 9001 certificate. Personnel certificates intend to give the customer information on the qualifications and capabilities of a person providing a service. The IPMA certificate for project managers represents a typical example of this type of certificates. As opposed

to management systems certificates which tend to focus on the organization, a quality process certificate focuses on how the service is produced. E.g. the polish ITB building thermal insulation certificate focuses on how construction processes relating to thermal insulation are conducted. Finally, as opposed to the aforementioned quality certificates, where features of the output or the product are not touched upon, the product or result certificates are attached to the quality and characteristics of the outcome of a service. The hotel star classification system is a good example of such end product certificates.

The biggest difference between certification and regulation is probably that while regulation is compulsory, certification is usually voluntary. In the Service directive Article 26, the European Commission emphasizes the emergence of voluntary certification of assessments by independent or accredited bodies. That is, voluntary assessment in the contrast to compulsory regulation. Although in most cases the certification itself is not compulsory, certificates are often needed to assure the buyer of a specific good or service that the product he or she buys is in fact in compliance with requirements in the regulation. There are also examples of certification schemes becoming what we call “de facto” compulsory. In contrast to compulsory schemes due to regulation, de facto compulsory schemes are typically market driven demands which pushes the company or person to get certified because the certificate is a market requirement. We will illustrate this with some examples from the survey in Chapter 9.5.

4.4. International networks

Although there apparently exist no international umbrella organization for all certification bodies, there is a variety of larger and smaller constellations of certification bodies. Most of these are typical trade associations, while others, such as the IQNet Association have established an international network where the members also cooperate in business. The list of associations which we have encountered in the survey is the following:

- Independent International Organization for Certification (IIOC),
- International Personnel Certification Association, European Federation of associations of certification bodies (EFAC),
- The International Certification Network (IQNet)
- The International Confederation of Inspection and Certification Organizations (CEOC).

4.5. Accreditation

Accreditation of certification bodies serves two main purposes. First, accreditation makes sure that the certification bodies are doing their job properly. This is done by testing the certifiers' skills and controlling that their staff is conducting their audits in a prudent and objective manner. Notice that to achieve accreditation, the certification body is not allowed to be involved in other economic transactions with the firm being certified. Moreover, the certification body cannot provide consultancy and certification to the same company.

Secondly, accreditation is a way of removing technical, or so called "red-tape" barriers to trade. All European accreditation bodies are organized within the European co-operation for Accreditation (EA). In addition, most of them are members of the International Accreditation Forum (IAF)⁷. EA is important in controlling that the national accreditation bodies are neutral from commercial pressure and that their accreditation activity is performed in a transparent manner. For instance, Bureau Veritas Certification is independent from Bureau Veritas Group for this reason. EA also ensure that the accreditations are compatible and mutually recognized across countries by controlling that the accreditation bodies have a common interpretation of the standards and not least EA facilitates a Multilateral Agreement (MLA) among national accreditation bodies. The MLAs are for natural reasons only in place for *internationally harmonized* standards.⁸ The role of the IAF is very much similar to the role of EA. By having the same requirements on all accreditation bodies, IAF and EA assure that all certification bodies having received accreditation for a specific scheme fulfill the international standard.⁹

The EA MLA reduces the barriers to trade of both goods and services as it requires accreditation bodies to recognize the equivalence of other members' accreditation to their own. The EA MLA also facilitates access to markets outside the EU through cooperation with the IAF MLA. The accreditation works as a passport, and whenever a certificate has the name of an accreditation body which is

⁷ From our sample of survey countries the accreditation bodies from Denmark, Finland, Germany (only TGA), Netherlands, Norway, Poland and Sweden are members of both IAF and EA, while Lithuania, Latvia, Estonia and Iceland are members of EA.

⁸ According to DAR, the council of German accreditation bodies, the IAF MLA is an MLA for accreditors of certification bodies within quality management systems (ISO 9001) and environmental management systems (ISO 14001), while the EA MLA in addition has a MLA for certification of personnel (e.g. ISO 9606 – Qualification test of welders).

⁹ Accreditation bodies apply the EN 45012/ISO 17021 standard for accreditation of certification of management systems, the ISO 17024 standard for accrediting certification of personnel, and the EN 45011 standard for accrediting product certification schemes. Accreditation of service specific activities sort under the accreditation of products.

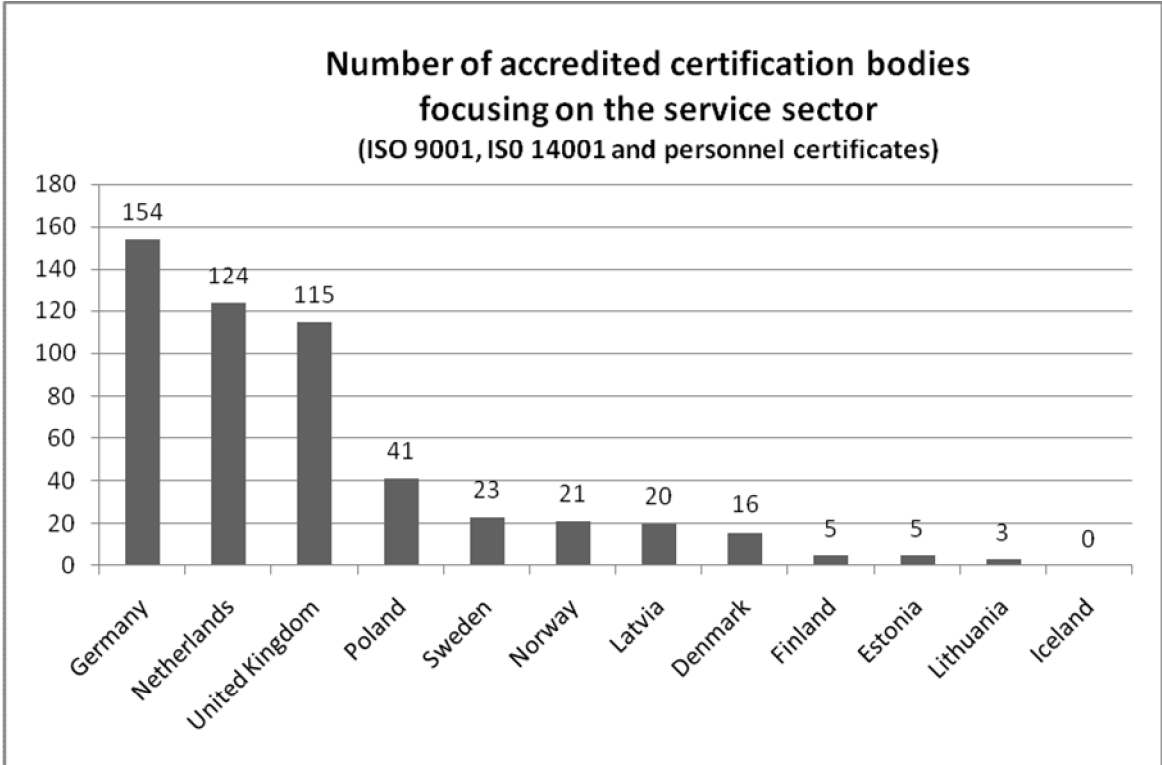
member of the MLA, the certificate shall be recognized. In principle, this should ensure that a company or a person only has to certify according to a standard once. For instance, a Polish welding certificate issued by an accredited Polish certification body should be accepted in Sweden without the need for any additional certification.

4.6. The accredited certification universe in numbers

Since most accreditation bodies collect statistics on their accreditation activities, it is possible to compose a mapping of the part of the certification activities that is accredited. It is important to notice that our figures do not represent the full universe of certification schemes in Northern Europe, since no un-accredited schemes are included. In our interview survey, we return to the relative importance of accredited and un-accredited schemes directed towards service sector firms and personnel.

In Figure 5 we present the number of accredited certification bodies in Northern Europe that perform certification of service providing firms on quality management systems (QMS), environmental management systems (EMS) and personnel.

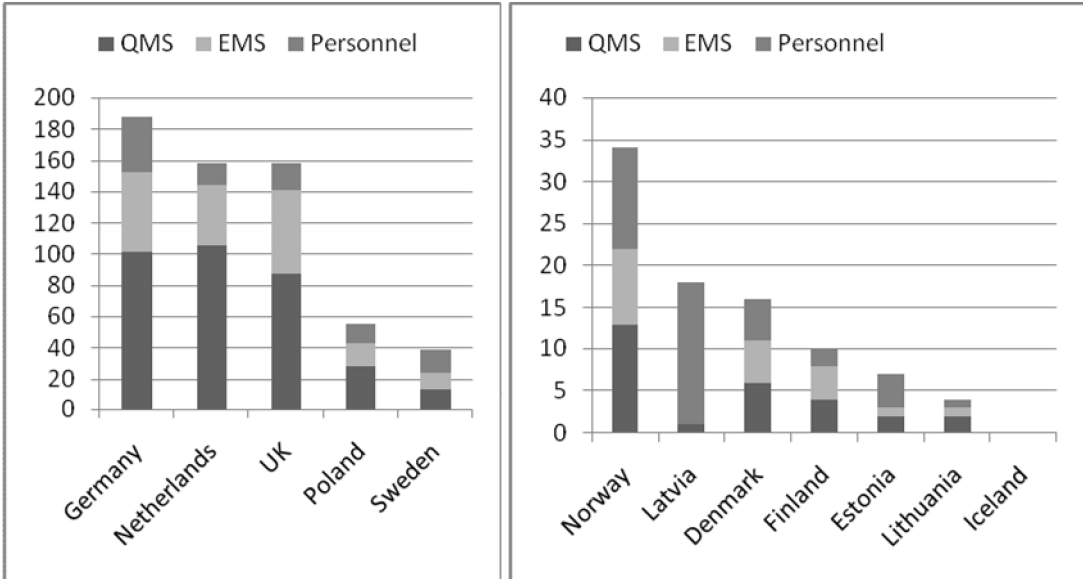
Figure 5. Number of accredited certification bodies per country in Northern Europe (2008)



Source: National accreditation bodies in Northern Europe, MENON Business Economics

Germany (154) is the country with the highest number of accredited certification bodies followed closely by the Netherlands (124) and the UK (115). From there on there is a large jump down to the next country which is Poland with 41 certification bodies. In Figure 6 below we enrich this picture by presenting the country specific number of accredited schemes within quality management systems certification (e.g. ISO 9001), environmental management systems certification (e.g. ISO 14001) and personnel certification.¹⁰

Figure 6. Number of accredited certification schemes per country in Northern Europe per 2007 (QMS, EMS and personnel certification)



Source: EA

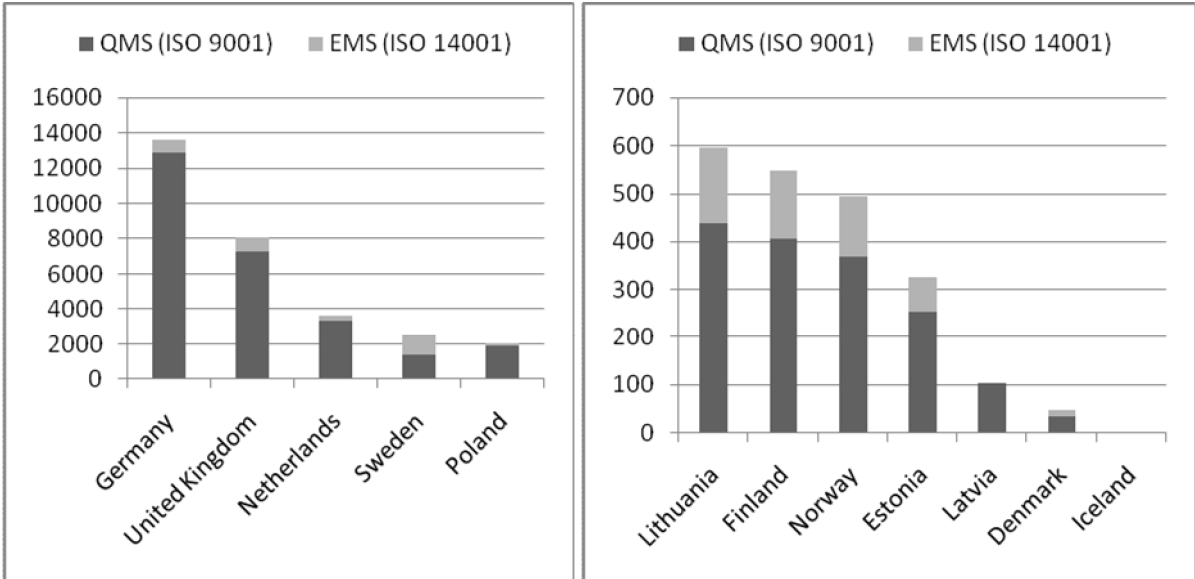
The total amount of certification schemes in Figure 6 follows the same pattern as we find in Figure 5 . The reason why all the countries have more accreditations than there are accreditation bodies, is simply because one certification body may hold accreditations on many different certification schemes. Figure 6 shows that certification of quality management systems (QMS) is the most popular scheme in all countries except from Sweden (EMS), Latvia (EMS) and Estonia (Personnel). The Netherlands has the largest number of accredited certification bodies within QMS closely followed by Germany and the UK. When we turn to the number of environmental managements systems (EMS) certification schemes, it is still the same three countries which have the largest number. Since

¹⁰ Here, we have not been able to pick out schemes where we know that service sector firms are served. However, since these generic ISO standards are widely used in the economy, there is no reason why they should not be directed towards service sector firms.

Germany and UK are the countries with the largest population in the sample, it is not surprising that they have many accreditations. That fact the Netherlands has the same number of accredited certification schemes as the UK, indicates that the Netherlands has a highly developed system for accredited certifications.

In Figure 7, we take it even one level further down into the details. Here, we focus on the actual number of accredited ISO 9001 and 14001 certificates issued to service providing companies. This follows the pattern of number of accredited certification bodies (figure 6) except from the Netherlands which has less than half the number of certificates issued compared to the UK¹¹.

Figure 7. Accredited ISO 9001 and ISO 14001 certificates issued for service providing companies



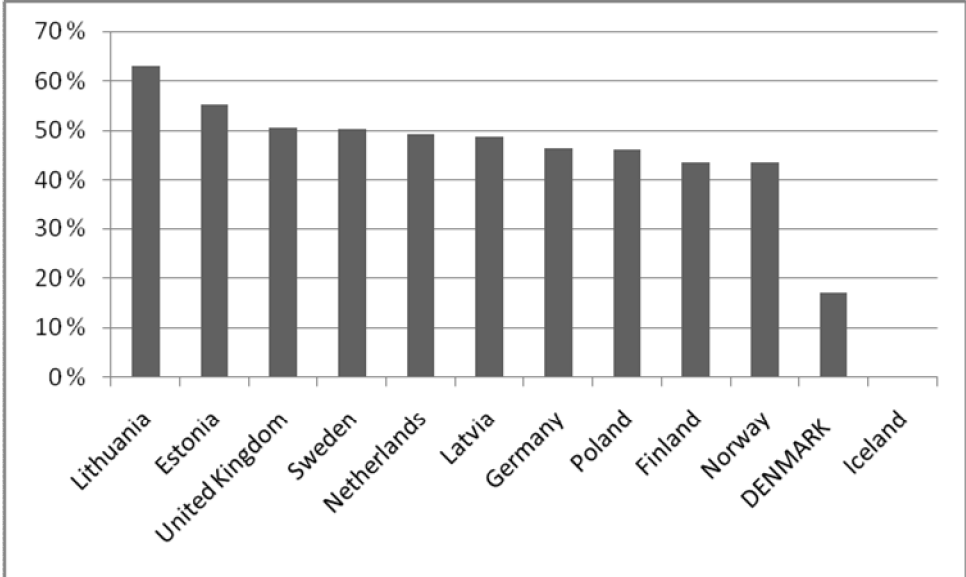
Source: ISO-survey 2006

EA estimates that the overall value of conformity assessment services delivered in Europe, in both voluntary and regulated areas, is in the region of €5 billion per year (Consumer Research Associates, 2008). This figure says nothing about the value of the certification activity directed towards service sectors. However, in Figure 8 we present the ratio between number of certificates issued for the service sector on the management systems (ISO 9001 and ISO 14001) relative to the total number of certificates issued in the economy. The ratio of service compared to all companies is quite stable

¹¹ The large number of accreditations compared to certificates in the Netherlands might either indicate that the Netherlands is a certification market with many and rather small certification bodies, or, that their certification bodies are highly internationalized, issuing most of their certificates abroad. From our sample of certification bodies three out of the four interviewed certification bodies could tell about a largely internationalized activity, indicating that a highly internationalized activity might explain the skewed ratio of certification bodies and issued certificates in the Netherlands.

across countries at approximately 50%. Denmark is the only country with a significantly smaller ratio. This statistic was however not confirmed in our interview with DS Certifisering from Denmark, who estimated that about 40% of their clients were service companies, and that the ratio was growing. It is a common perception that Central and Eastern European countries have a smaller service sector than the Western European countries. For instance, services value added as a percentage of GDP is about 75% in the UK and the Netherlands, while it is about 60% in Lithuania and 70% in Estonia. Thus, the patterns revealed in Figure 8 are relatively surprising since Lithuania and Estonia has the largest ratio of certificates issued to the service sector compared to the rest of the economy. Findings in our survey indicate that the high ratio of service certificates in Lithuania and Estonia can be explained by requirements of certification in public tenders especially within construction.

Figure 8. Certification of service providing companies relative to total (ISO 9001 + ISO 14001)

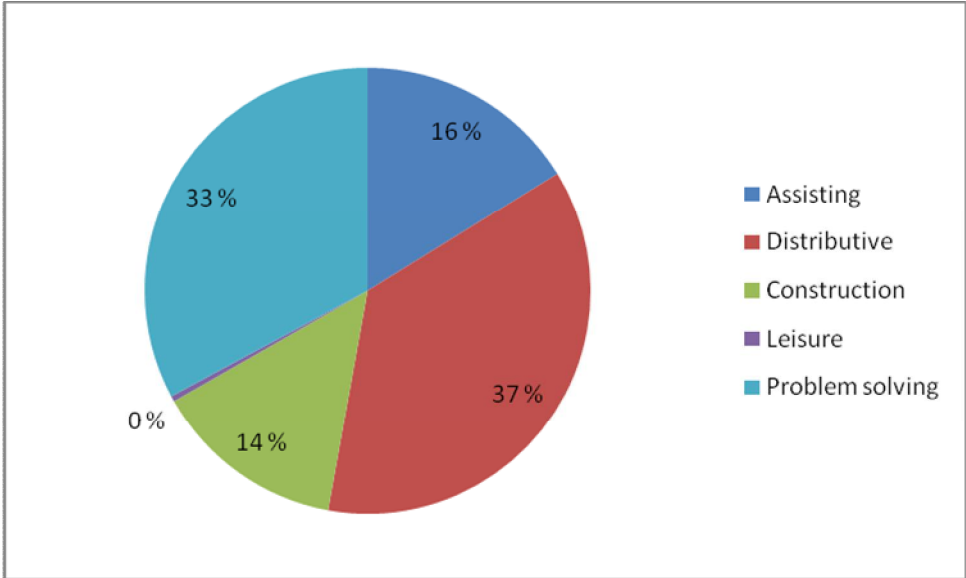


Source: ISO Survey of certifications 2006

In chapter 3, we introduced our typology of services which will be used for analytical purposes throughout this report. In this respect, we have distributed the shares of certificates issued to the service groups in Figure 9. Approximately one third of the certificates are issued to firms in each of the groups: distributive services and problem solving services. The group of problem solving services providers is characterized by many smaller firms with a strong need to signal quality. Hence, the number of management system certificates (ISO 9001) is large within this group. Leisure services, on the other hand, stand for less than 1% of the certificates issued, although the group represents approximately 10% of service sector employment (example for Norway). This could signal an area of underdeveloped certification activity. Yet before concluding on this matter, one needs to investigate

whether more specific service sector certificates are more frequently applied in the leisure service industry. We come back to this in our analysis based on interviews with certification bodies.

Figure 9. Management systems certificates (ISO 9001/14001/27001) in Northern Europe according to service type (2006)



Source: ISO and MENON Business Economics

5. The pros and cons of certification

For a certification to be meaningful to the firm, it must add a value that exceeds its costs. For the society as a whole, the implementation of a certification scheme may be gainful although it appears as unprofitable for the single firm. For instance, a certification scheme may contribute to solve market inefficiencies related to lack of consumer information. The scheme may contribute to increased international trade and competition which in the end increases product quality and the product specter in addition to lowering prices. In the case where certifications are profitable for society but unprofitable for the firm, we are usually facing a coordination problem. As long as only a few firms join a certification scheme, the intended positive signaling effect remains limited since few customers hold knowledge about the scheme. Yet, if the number of the participants increases, the profitability climbs, fostering both gains to society and firms. In these cases, there may be a scope for a “top-to the bottom” initiative. This is however a narrow path to walk since you easily end up with something very similar to regulation. In this chapter we briefly present the pros and cons related

to certification of services. In this chapter we argue that third party attestation may be valuable for several reasons, although we also point to some caveats.

5.1. Certification as a signal ó creating markets and facilitating competition

The most important feature of certification, especially in relation to service providers, is that it signals certain characteristics of the service to the consumer. Characteristics such as fulfillment of specific quality criteria or verification that the company has focus on continually decreasing the environmental footprint from its activity. This helps the consumer in the screening process of distinguishing high quality service providers from low quality service providers, which in turn increases the economic efficiency as consumers chose their service providers on a more accurate basis of information¹². An important thing to remember is that for certification to be effective, in the way that it informs the customer about the quality of the service, the customer must be familiar with either the certification scheme and/or the certification body. If none of these are known to the customer, the certification gives no added value.

5.2. Generating international trade

In international trade one often observes what is called a “home country bias” in consumption of goods and services. This means that people, given the same price, tend to prefer domestically produced goods and services. One factor which explains this relates to the fact that local consumers know less about foreign service providers, and therefore perceive the risk of buying a bad service from a foreign provider as larger than from a national provider. Certification of foreign and domestic service providers according to a single common standard increases market transparency, which enables the consumer to compare both the prices and the quality of a service. Through these mechanisms certification contributes to facilitate international trade and a more efficient resource allocation.

5.3. Assuring quality by benchmarking

Standards, and the certification based on standards, also have the role of benchmarking certain characteristics of a service, and create an industry norm. This can increase the level of quality in the entire industry as certification makes it easier for companies to compare the level of skills and service

¹² This is not to say that there should only exist a market for high quality services. In fact, according to Akerlöefs theory on “market for lemons”, he proves with an example from the market for second hand cars that if there the seller of high quality second hand cars are unable to give a credible signal of the quality of their car , the market for high quality cars will collapse. Certification is a good mean to solve this problem.

quality of their competitors, which in turns increases the competitiveness of the industry. Moreover it enables the service providers to focus more on internal processes in service productions so that they can realize economies of scale.



OHSAS 18001
Occupational Health
and Safety

EN 15017
Funeral services

EN 45013 /ISO 17024
Playground inspection

EfbV Entsorgungsfachbetriebe VO
Waste disposal

5.4. Improving efficiency of management and processes

Certification is more than verifying quality and reducing information asymmetries between consumers and producers of a service. Management standards, such as the Quality Management Standard - ISO 9001, is a standard that requires the firms to analyze their own processes in order to find out what factors are most important for assuring quality. The purpose of implementing the standard is ultimately to design an organization that works for continually improving its performance, it be quality of its services, environmental footprint, information security or occupational health and safety. Certification does in this context not only lead to quality verification, but actual quality improvement.

5.5. On the downside ó reducing variety and innovation?

Certification is however not necessarily regarded as purely beneficial. One common critique, towards certification is that it “cements” a specific practice, which in turn reduces the variety and hinders innovation of products and services. This critique is perhaps specifically relevant for certification of services, since services in general are more heterogeneous than goods, i.e. they are more complex and often more tailor made towards the specific customer. Certification according to detailed and strict standards may limit progress in service product development and suppress use of technological progress.

A relevant example is HOTREC, which is the trade association for hotels, restaurants and cafes in the European Union. HOTREC firmly opposes the idea of a common European or international standard for the hospitality industry. They argue that *contrary to goods, hospitality services are generally tailored to the customer, and that international standards would undermine the diversity of hospitality services which reflects different cultures and geographical situations, and constitutes one of the major attractions for customers.* There is clearly opposing views on this matter. Some might claim that HOTREC has a good point as goes for tourists that come to experience genuine cultural variety. On the other hand, others emphasize that the regular business client would rather want to know precisely which facilities a three star hotel offers when she books a room.

The German standardization institute (DIN) has quite the opposite view on norms and standards. According to DIN a good standard is characterized by not specifying one technical solution, but rather containing requirements that form the framework for many different possible solutions. DIN has since 2006 been studying “Innovation with norms and standards” (INS), which is part of “The high tech strategy for Germany” sponsored by the German government. In this project 21 high-tech sectors have been chosen, of which services is one of them. DIN reports that 8 out of 40 sectors investigated

in 2008 were service sectors, especially focusing on the IT-sector. They claim that norms and standards are to be used as instruments for quickly and efficiently turning research findings and innovative technical developments into products that can be placed on the market. DIN's research activity on innovation with norms and standards included among others; public cleansing and waste management, skills models for personnel development, requirements for international service providers, systematic development of international services in the investment goods industry, e-government networks, and the digitalization and long-term preservation of digital documents.¹³

5.6. Increasing transaction costs

Another argument against certification is that it increases the costs of goods and services. Third party verification obviously demands extra resources which in turn raises the prices for the consumers. Due to their heterogeneity, it is likely that the certification costs related to services are significantly higher than goods, which are often easier to standardize. In addition, the service sector is characterized by many small and medium sized enterprises (SMEs), for which certification is likely to be disproportionately more expensive than for larger corporations. This is because much of the control activity and paper work related to certification are the same for small companies as for larger corporations. We look closer at the cost issues in Chapter 8.

5.7. Means for protectionism

Certification has also in some cases been accused of being a tool for protectionism. By permitting market entry contingent on certification according to some local specific standard, a typical red-tape barrier is introduced. Such measures often make it prohibitively difficult and expensive to gain access to foreign markets. The EU and EEA single market act accompanied by the EU Services directive do in principle prohibit countries from discriminating foreign companies on such grounds. According to the service directive Article 16 (1b), restrictions against free trade of services are only permitted if trade stands in opposition to general interest objectives, including protection of the environment, public security and public health as well as the need to comply with labour law.

¹³ For DINs summary reports on INS from 2006 and 2007 see here:
<http://www.ins.din.de/cmd;jsessionid=46A37BE2742DA655D2BDAFE385BD1195.4?level=tpl-home&languageid=en>

Part 2

A survey of
Certification
activities in
Northern Europe

6. Research questions and methodology

The ambition of this study is to map and survey the most central certification schemes in the Nordic countries, the Baltics, Poland, Germany, the UK and the Netherlands. It is our explicit ambition to select a sufficiently wide variety of certification schemes to provide a good illustration of the certification universe focusing on service sectors in these countries. Last but not least, we want to test whether higher certification activity towards the service sectors contribute to more international trade in services.

In order to structure the study, and go beyond a descriptive approach, we seek to answer some central research questions that capture the role of certification activities in an **international** context. Our interview survey (see appendix 2 for the interview guide) was designed in order to shed light on the following questions:

What factors contribute to whether a certification scheme becomes internationally recognized?

This is an essential question relating to cross border economic activity since certification schemes to a larger extent facilitate international trade when they are international in scope. One of the parameters we look at is characteristics of the standards behind the certification scheme. Furthermore, we look into what role accreditation plays for the international recognition of certificates. We ask whether it matters that the standard is generic (ISO 9001) or service specific (translation services), whether there are competing standards in the market, whether they are national or international, or whether they are formalized by a standardization body or not. Moreover, do characteristics of the certification body such as size, ownership structure, cost structure or participation in international networks play a role for internationalization?

What is the potential for increased certification activity directed towards the service sector in the future, with an emphasis on the international aspects?

To get an impression of the mechanism in the market for service certification we asked all certification bodies whether they experienced the developments in certification schemes as demand or supply driven and what kind of growth in service certification they had

experienced over the past three years. In addition we asked about the certification bodies' expectations on further developments in the certification market for service providers. Is there a demand for new certification schemes, or would the growth of certificates issued to service companies come within existing schemes? We also looked at the general market development of certification bodies by using accounting data in addition to making assessments on the role of certification costs.

Does higher certification activity towards the service sectors contribute to more international trade in services?

This question is central to the study since its main focus is directed towards the role of certifications in the international market for services. However, testing such a question is rather complex and requires sound statistical information and modeling tools that fit the research problem. In Chapter 11, we present a gravity model for international trade, where service trade between two countries is explained by the certification activity in the exporting and importing country, among a series of other determinants. This model is widely recognized as a model with strong predictive power for trade patterns.

More on methodology

The study approaches the research questions in several ways. First, we have conducted telephone interviews and structured e-mail correspondence with a total of 50 certification, standardization and accreditation bodies in Northern Europe. The largest component is telephone interviews with a selection of 30 certification bodies, in addition to one international certification network, with relevance for certification of the service industry. The 30 certification bodies were selected according to the following criteria:

- 1) minimum one certification body from each country,
- 2) one of the largest certification bodies from each country,
- 3) certification bodies that could illustrate the specter of existing certification schemes applied on service providing companies and personnel.

We specifically focus on certification bodies from countries which are perceived to be leading in the field such as Germany and the Netherlands, and countries for which we have particular knowledge (Norway and Denmark). Ideally, we would have appreciated a larger number of certification bodies from the United Kingdom (represented by two bodies in our survey), but due to particularly strong confidentiality concerns in the UK, we had problems arranging interviews with British certification bodies. The guide which forms the basis for our interviews is presented in Appendix 2. We have also interviewed standardization bodies from Finland (SFS-standardization), Germany (DIN) and the

United Kingdom (BSI), in addition to telephone conversations and e-mail correspondence with accreditation bodies from all the North European countries within our scope.

Second, we use detailed data from the ISO 2006 Survey of Certifications to get complete statistics on the number of ISO certificates issued. These data allow us to identify the number of accredited certificates issued within each of Northern European countries, separated according to our service typology presented in Chapter 3. We also contacted the International Accreditation Forum (IAF) and the European co-operation for Accreditation (EA) for data on numbers and type of accreditation within each of the Northern European countries. The data collected from the ISO 2006 survey and EA/IAF is presented above in Chapter 4 describing the European certification universe.

Third, we identify all accredited certification bodies in Sweden and Norway, and link them to the MENON historical accounting database. By aggregating the certification bodies' turnover figures from 2003-2006, we get a proxy for the trend on demand for certification services.

Finally, we establish a large database for service trade between European countries, which allows us to make closer inquiries regarding the last research question. The database also contains information on market size, geographical distance between countries, the national certification intensity and some measures relating to the regulatory regime towards certification activities in each country, based on large OECD regulation database.

7. A survey of service certification in Northern Europe

In Table 1 below, we present the list of certification bodies that were interviewed. The list contains three public organizations (ITB and PCPB from Poland, and LST SERT from Lithuania), the rest of the bodies are private. However many of them have government ownership, and about half of the certification bodies report that they are non-profit. Six of the organizations which we have listed as certification bodies are trade association. They are on the list because they provide their members with certification schemes. Some of them may compete against the ones offered by the professional certification bodies. To make it clear, whenever we refer to certification bodies we mean both the professional ones and the trade associations.

The number of employees in each certification body varies substantially between certification bodies (see Table 1). This is merely a reflection of the broad variety of certification bodies. Some of the bodies are international organizations with global operations, others manage just one or two

certification schemes in a small domestic market, while others again are in a startup phase with yet to issue a single certificate. This does however not explain all of the variation in the number of employees. The number also depends on how the organization is set up. Most of the bodies hire external consultants to do the auditing in the companies they certify, yet some have all activity in-house. External auditors engaged by the certification body are not included in the employee figures. The ECDL office in Finland is for example only listed with one employee. This is because they have outsourced much of the activity to 65 test centers, which provide training and tests. The certificates are issued by ECDL Finland based on the reports that are required from the test centers. Consequently, the number of employees and number of certificates issued will not necessarily be strongly correlated. Other companies in the survey that follows the ECDL model are EFICERT and the Eco-Lighthouse Foundation. It should also be mentioned that while most of the certification bodies reported the number of employees working with certification in their domestic market, Bureau Veritas Certification reported an approximate number of employees working with certification globally.

Table 1. Characteristics of interviewed certification bodies

Body	Country	Employees*	Founded**	Type organization
<i>DQS GmbH</i>	DE	190	1985	Private
<i>Tüv Rheinland CERT</i>	DE	220	1990	Private
DELZert	DE	5	2006	Private
EFICERT	DE		2002	Private
DS Certificering A/S	DK	58	1983 (2007)	Private
HORESTA	DK	5	1997	Trade association
Ecolabelling Denmark	DK	18	1997	Private
Estonian Assn. of Appraisers	EE	1	1995	Trade association
Metrosert Ltd	EE	4	2000	Private
Inspecta Certification	FI	50	1990	Private
ECDL	FI	1	2006	Private
Bureau Veritas Certification	GB	ca. 5500	1828 /1987	Private
MENTOR	GB	45	1988	Private
Vottun hf	IS	3	1991	Private
LST SERT	LT	4	2004	Public institution
LNSASC	LV	15	2000	Private
KEMA Quality B.V.	NL	660	1927	Private
TNO Certification B.V	NL	100	1993	Private
CBF	NL	10	1925 /1996	Private
Cito Certification	NL	500	1968	Private
DNV Certification AS	NO	75	1864 /1988	Private
The Norwegian Coach Assn.	NO		2004	Trade association
Eco-Lighthouse Foundation	NO	5	1993 (2003)	Private
The Norwegian Hospitality Assn.	NO	1	1900 (1997)	Trade association
National Federation of Service Ind.	NO	1	1989	Trade association
ITB	PL	26	1945	Public institution
PCBC	PL	15	1959 (1994)	Public institution
SEMKO Certification AB	SE	29	1993	Private
Almega Serviceentreprenörerna	SE	2	1965	Trade association
Nature's best	SE	5	1996 /2002	Private

*Refer to the number of labour years working with certification within the organization. The number does not include external consultants and auditors.

**Numbers in parenthesis refer to any alternative foundation year, e.g. separation from the national standardization body. If there is a slash, the first year refers to the foundation of the organization, while the second refers to the year when they started the certification activity.

Interviews with 30 certification bodies provided a list of 83 different certification schemes relevant for the services sector. To select a representative sample of certification bodies is an efficient way to grasp the trends and variety of certification schemes across countries and service sectors. However, one cannot expect the sample to provide a complete picture of the certification activity in Northern Europe. The certification schemes that we present obviously reflect our selection strategy, which

among other factors involved covering the large certification bodies in each country, in addition to having a selection of unaccredited schemes and trade association schemes.

To our knowledge, this is the first study to present this type of information on certification for both accredited and unaccredited schemes directed towards the service sector. When interpreting our data one should bear in mind that the distribution of certificates issued within each service type is sensitive to which country the certification body we interviewed is located in. For instance, a national industry association located in Germany will have more members than one located in the Baltics or the Nordics. Furthermore, one should be aware of the degree of accuracy in the data we collected from the certification bodies. Mostly, we received detailed statistics on all certification schemes. But for some, we only received aggregated numbers or no statistics on number of certificates at all. The reporting we received from the smaller certification bodies with fewer certification schemes was in general very good. For the larger bodies it would require a significant workload to hand over the statistics on service certification which we requested. This is not at least due to the fact that many certification bodies do not operate with the statistical split between the service sector and the goods sector which we requested.

It has not been the ambition of this study to account for all certification schemes in the Northern European countries. Our attention has primarily been devoted to describing the variety of such schemes focusing on the service sector. Consequently, one should regard the figures from our survey as a representative indication of certificates issued in the service industry. By picking some of the largest certification bodies in each country as interview objects, we are confident that the survey figures on certificates issued per sector in most cases can give a good representation of what the real world looks like.

By sorting schemes according to the service typology introduced in Chapter 3 we introduce an organizing principle which helps us sort what type of service activities the certification is directed towards without getting lost in details. Consequently, our presentation of the survey is organized according to these service sector groups (problem solvers, assisting, distributive, leisure and construction services).

As discussed in Chapter 3, we expect to find more certification schemes directed towards assisting and distributive services, since these service groups are more homogeneous and easier to standardize than e.g. problem solving and leisure services.

7.1 A structured analysis of the certification bodies and their schemes

Table 2 contains examples of certification schemes, and how we organize our presentation of the schemes throughout this chapter. The table is closely related to the certification universe map presented in chapter 4. Their characteristics are mapped according to the following dimensions: First we focus on what kind of services the certificate is directed towards (column 1). The service is then sorted after service category, i.e. problem solving, assisting etc (2). We have also sorted the standard according to whether they are international or national, formalized or not formalized (3), what characteristics of the service provider the scheme is focused on (4) and what the certification signals (column 5). The last column contains information on the certification body.

Table 2. An example of the categorization system

	1	2	3	4	5	6
Certification scheme	Service	Service typology	Type of standard	Service characteristics	Purpose	Certification body
ISO 20252	Market, opinion and social research	Problem solving	International formal	Management system	Quality	Bureau Veritas (UK)
EN 15038	Translation	Assisting services	International formal	Process/ Personnel	Quality	Inspecta(Fin)/ Metrosert (Lit) BureauVeritas (UK)
VBO certification	Real estate agents	Distributive services	National other	Personnel	Quality	Cito (Ned)
Nature's Best	Ecological tourism	Leisure services	National other	Process/ Personnel	Quality	Nature's Best (Naturens Bästa, Swe)
ITB criteria document	Buildings thermal insulation	Construction	National other	Process	Quality	ITB (Pol)

7.1.1. The service typology

In Table 3 we present summary statistics on the number of schemes identified through the interviews. We identified nearly 37000 service certificates issued within 83 certification schemes. Notice that we have added the category “Generic” since a large number of certification schemes are not specifically designed for one type of service (e.g. those based on the ISO9001 management systems standard). The number of schemes is relatively evenly distributed between the service groups, except for leisure services, which may indicate that certification activities are less developed in this segment. The details for the specific service groups are discussed further below.

Table 3: Number of certification schemes by service type.

Typology	No. schemes	% of total
Generic	19	23 %
Problem solving	10	12 %
Assisting	17	20 %
Distributive	18	22 %
Leisure	6	7 %
Construction	13	16 %
Total	83	100 %

Source: MENON Business Economics

7.1.2 National vs. international and formalized vs. other standards

Behind every certificate, you find a standard, a norm or some measure of conformity. The market for a certificate, whether it becomes national or international is strongly affected by the standard or measure behind it. As described in Chapter 4, we focus on two dimensions of the standards, firstly whether they are international or national, and secondly whether they are formalized or not. By identifying these characteristics of standards, it can tell us something about the scope of the certification schemes (international or national) and whether we are assured that criteria are based on a consensus process between stakeholders (formalized).

Formalized standards refer to standards which have been given the label of a national or international standardization body (such as BS for British Standard, DIN for German standard or ISO for the International Standardization organization). These standards are developed in technical committees (TCs). The technical committees consist of representatives from the relevant

stakeholders (trade associations, companies, consumer groups, government etc.) and standardization experts from the standardization bodies. The work in the technical committees is “consensus driven”, which means that for the standard to become a formalized standard, the stakeholders must agree on the standard.

With the term “other standards” we mean standards which are not formally approved by national or international standardization bodies. These standards may be:

- 1) Publicly Available Specifications (PASes) which are standards made by the standardization bodies on assignment by specific stakeholders (e.g. industry, consumer groups, government), but which has not been accepted as a national standard, e.g. because of a lack of consensus¹⁴,
- 2) private publicly available standards such as the OHSAS 18001 on occupational health and safety¹⁵,
- 3) industry standards such as TL 9000 for the telecom industry and
- 4) “certifier specific” standards where the certification body itself is the scheme owner and responsible for updating the standard. A typical example could be the VeriSelect scheme, which is specific for Bureau Veritas.

In Table 4 we have sorted the certification schemes according to the service typology and standard types. In the bottom row we show that approximately 70% of our schemes are informalized, which indicates that there exist a substantial number of certificates on services that are not based on formal standards. Furthermore, the table shows that the certification schemes are evenly distributed between internationally and nationally orientated standards. Yet, when it comes to national standards, the certificates are predominantly based on informalized ones.

¹⁴ There is however nothing to keep the PAS from becoming a formalized national or international standard with time if there is a consensus to do so.

¹⁵ This standard is made in an international cooperation between some leading standardization and certification bodies. OHSAS 18001 is based on standards such as the BS8800 and other certifier specific standards such as the DNV Standard for Certification of Occupational Health and Safety Management Systems(OHSMS):1997. Allegedly OHSAS 18001 was supposed to become an ISO-standard, but due to problems in the consensus process the work stranded.

Table 4. Certification schemes for services categorized by type of service and standard (result from interviews)

Typology	International		National	
	Formalized (ISO/EN)	Other (TL9000/PAS)	Formalized (BS/DIN)	Other (CBF/PAS)
Generic	5	10	3	1
Problem solving	1	4	1	4
Assisting	8	0	1	8
Distributive	4	5	1	8
Leisure	0	3	0	3
Construction	0	0	0	13
Total	18	22	6	37

7.1.3 Certification and service provider characteristics

In the interviews we asked the certification bodies to sort their certification schemes according to what characteristics of the service provider it certified. Here, we focus on whether the certification scheme is focused on the organizational set-up, the personnel, the production process or the product itself. Many of the certification bodies reported that they provide management system certification, which refers to a systematic approach to managing processes and/or activities, people, resources and infrastructure. Clearly many certification schemes include elements of all of these production characteristics. We have therefore included an own category called mixture for schemes with focus on more than one of these elements. See Table 5.

Table 5. Characteristics of the service provider

Typology	Management system	Personnel	Process	Product	Mixture
Generic	13	1	0	2	3
Problem solving	1	8	0	0	1
Assisting	2	5	3	1	6
Distributive	7	3	2	1	5
Leisure	0	0	0	1	5
Construction	0	2	11	0	0
Total	23	19	16	5	20

Table 5 shows that the certification schemes in our survey are dominated by those focusing on management systems. Most of the management system schemes are either generic, which means that they are applicable in all sectors, or orientated towards distributive services. Personnel certification is also a large category and is mainly focused on problem solvers and providers of

assisting services. Most of the purely process specific certification schemes were found within construction, but it should also be emphasized that most of the management system certification schemes are also highly process orientated. The process and product of a service are often intangible concepts. Still, some of the schemes can clearly be defined as product orientated. This goes for example for the CBF-seal for fundraising, where one of the requirements is that the costs for fundraising may not amount to more than 25% of revenues from its own fundraising in any one year. In the mixture group you find certification schemes which are focused on both personnel in the company, processes as well as characteristics of the final outcome. In addition, this group contains certification schemes which are in the form of membership requirements in trade associations. These schemes often have a combination of elements such as documentation that taxes are paid and that their employees are paid according to the going tariff.

7.2 Going into the details

7.2.1 Generic certification schemes

In Table 3 we show that $\frac{1}{4}$ of the certification schemes are generic. Most of them sort under “management system” certification. Their function is to confirm that the company has implemented a management system which continually works to improve an important parameter in the company’s business¹⁶. Examples of parameters which management system certification focus on are quality (ISO9001), environmental policy (ISO 14001), occupational health & safety (OHSAS 18000), information security (ISO 27000), supply chain security (ISO 28000) and social accountability (SA 8000). In table 6 we have listed the generic certification schemes included in our survey (they all apply to service providers).

¹⁶ The principle of the management system is that the company should make a plan where it establishes objectives and processes required to reach its objective. When the processes are implemented, the processes and results are monitored and measured up against the ambition. The report from this monitoring gives guidance on how to act to improve the processes further, which is a circle that leads to continually improvement.

Table 6. List of generic certification schemes

Certification scheme	Service feature	Type standard
ISO 28000	Supply chain	Int. formalized
ISO 14001	Environment	Int. formalized
ISO 27001	Information security	Int. formalized
ISO 9001	quality	Int. formalized
ISO 14065	Certified emission reduction	Int. formalized
SA 8000	SCR	Int. other
EMAS	Environment	Int. other
OHSAS 18001	OH&S	Int. other
Qweb	Website	Int. other
Flower	Environment	Int. other
Swan	Environment	Int. other
SCC/SCP (Security Certificate Contractors / S	OH&S	Int. other
VeriSelect	Customer care and satisfaction	Int. other
DQS-TIP	Quality	Int. other
ECDL-criteria	IT	Int. other
BS 25999	Business Continuity	Nat. formalized
Corruption prevention system	Anti-corrpution	Nat. formalized
PN-N-18001	OH&S	Nat. formalized
Eco-Lighthouse Program	Environment	Nat. other

The left column contains the name of the certification scheme (or the standard), the mid column shows the feature of the service which is the focus of the scheme, while the right column tells what type of standard it is.¹⁷ The table shows that 15 out of the 19 generic schemes are based on international standards. The standards are equally distributed between formal schemes and other standards such as EMAS (a standard from the European Commission, similar to the ISO 14001), and Qweb which is a scheme provided by Inspecta.

Generic certification schemes dominate in terms of the number of certificates issued (26651 out of 36685, or more than 70%). By using the ISO statistics on generic certificates (ISO 9001/14001/27001) which is presented in Figure 2 at the end of Chapter 3, we can make an estimate on how the generic certificates in our survey are distributed amongst the service types. This way, we can actually spread the strongly dominating generic category out on the service types. The estimates are presented in Table 7.

¹⁷ The type of standard is categorized according to our own assessment made on the basis of information from the interviews and searches on websites.

Table 7. Distribution of certificates (including distribution of generic certificates by sector)

Typology	Number of certificates	In %
Problem solving	12206	33 %
Assisting	8504	23 %
Distributive	11241	31 %
Leisure	965	3 %
Construction	3769	10 %
Total	36685	100 %

The next sub-chapters will be dedicated to presenting the findings within each service group more in detail.

The figures indicate that problem solving services is the host for the largest number of certificates in the service sector, closely followed by distributive services. Leisure services is the smallest sector both in terms of number of certificates (Table LL) and in terms of certification schemes (see Table 3). We will comment on these figures in the subsequent sub chapters.

7.2.2. Certification of problem solvers

In our survey, we found 10 certification schemes which were directed specifically towards problem solving services. These are listed in Table 8.

Table 8. Certification schemes for problem solving services and personnel

Certification scheme	Service	Type standard
ISO 20252	Market, opinion and social research	Int. formalized
TEGoVA criteria++	Property appraiser	Int. other
IPMA-standard	Project manager	Int. other
EFICERT - criteria	Financial adviser	Int. other
EFICERT - criteria	Financial planner	Int. other
LVS 343	Dangerous devices experts	Nat. formalized
DStV Qualitätssiegel	Tax consulting	Nat. other
EN 45013 /ISO 17024	Handling psychological testing tools	Nat. other
Norwegian coach assn. criteria	Coaching	Nat. other
NHO Service member criteria	Occupational health services	Nat. other

6 out of 10 schemes were international, and only 2 are based on formalized standards. A striking common characteristic of the schemes towards problem solving is that they are all focused on personnel certification (see Table 5), with the only exception being ISO 20252 on Market, opinion,

social research, and NHO Service member criteria for providers of occupational health services. This is in line with what we would expect since problem solving processes are highly specialized and hard to standardize. Hence it is rational to concentrate certification activity on verifying the competence of personnel.

In total, the 10 problem solving schemes combined with the generic certificates issued to providers of these services, amounts to 33% of all certificates in our study (see table 7). Contrary to what we would predict, problem solvers are hence the group of service providers which have been awarded the most certificates. However, when we take the number of people working in this sector into account (19% of the service employees in Norway) and the fact that most of these certificates are based on generic standards with few absolute requirements, the pattern becomes more in line with our expectations.

IPMA – Certification of project managers

Project manager certification is a private international certification scheme owned by the International project management association (IPMA)¹⁸. The IPMA certification scheme is a generic certification scheme for project managers in businesses and organisations. We have chosen to categorize it as problem solving although it clearly also has generic characteristics. Since the tests and interviews which form the basis for issuing the IPMA certificate is based on input from the appliers colleagues and related to projects which the applier is working on, the certification scheme becomes very flexible and tailor made for project managers in all industries.

CITO, which has its headquarter in the Netherlands, reported that the number of IPMA certificates they issue had been growing at about 50% a year. The scheme itself has four levels, for which CITO has issued 2400 certificates on the most basic D-level - “Certified Project Management Associate” (D-level) while for the A-level - “Certified Projects Director” it has only issued 4 certificates. All together CITO had issued 3134 IPMA certificates.

The IPMA certificate is issued locally in many European countries in addition to large countries such as China, USA, Brazil and South Africa. There are IPMA certification bodies in all the North European countries except Estonia and Lithuania. CITO has its main activity in the Netherlands, but is also established in Germany, the USA and Turkey.

7.2.3. Certification of assisting services

Within the group of assisting services, there are a total of 17 certification schemes. Table 9 presents the schemes.

¹⁸ <http://www.ipma.ch/Pages/default.aspx>

Table 9. Certification schemes for assisting services and personnel.

Certification scheme	Service	Type standard
En 9110/AS 9119	Aerospace industry Maintenance	Int. formalized
ISO 20000	IT	Int. formalized
EN 287	Welding	Int. formalized
ISO 9606	Welding	Int. formalized
ISO 3834/EN 729	Welding	Int. formalized
EN 15017	Funeral	Int. formalized
prEN 15838	Call centers	Int. formalized
EN 15038	Translation	Int. formalized
DIN 14675	Services on fire alarms	Nat. formalized
BOA	Extraordinary civil servants	Nat. other
CITO - Call center employee	Call center employee	Nat. other
EN 45013 /ISO 17024	Playground inspection	Nat. other
EfbV Entsorgungsfachbetriebe VO	Waste disposal	Nat. other
Conference	Business facilitation	Nat. other
Almega Serviceentreprenörerna	Cleaning, facility management	Nat. other
Ren utvikling (Clean Development)	Cleaning	Nat. other
Sikker vakt (Safe Guard)	Security	Nat. other

The standards applied in certificates that are directed towards assisting service providers are divided between international and national. While all the international standards are formalized ISO and EN standards, the national ones are un-formalized, and mostly provided by trade association such as HORESTA (Denmark, Conference classification), Almega (Sweden) and the National Federation of Service Industries (NHO Service, Norway, Cleaning and Security). Similar to what we find in the problem solving sector, the majority of the certification schemes within assisting services also have an element of personnel certification.

When we include the generic certificates issued to providers of assisting services, the total number of certificates issued to this service group represents 23% of all certificates in our study (see table 7). The fact that assisting services are relatively easy to standardize (implying many schemes), and that the sector is relatively small (small proportion of all generic certificates), makes these findings reasonable.

7.2.4. Certification of distributive services

The largest number of service specific certification schemes in our survey is found within the group of distributive services, totaling 18. The list of schemes in Table 10 is dominated by schemes within education (4 schemes, including e-learning), food (restaurants and catering) and transportation (furniture removal, railway and mentor truck certificates).

Table 10. Certification schemes for distributive services and personnel (result from interviews).

Certification scheme	Service	Type standard
ISO 22000	Food	Int. formalized
ISO 19796	E-learning	Int. formalized
EN 12522	Furniture removal	Int. formalized
BRC	Food	Int. other
IRIS	Railway	Int. other
HACCP	Food	Int. other
TL 9000	Telecom	Int. other
IFS - International food standard	Food	Int. other
EBtrust	E-trade	Int. other
PAS 1037	Education	Nat. other
Artikel 3(2) RL 93/43/EWG (HACCP)	Food	Nat. other
AZVV	Education	Nat. other
VBO certification	Real estate	Nat. other
MENTOR	Transport and distribution	Nat. other
EuRA kvalittssiegel	Relocation	Nat. other
AZVV	Education beyond qualification	Nat. other
CITO - Energy classification expert	Classification of house energy	Nat. other
CBF seal	Fundraising	Nat. other

The standards applied for certificates directed towards distributive services are also equally divided between international and national. Few of the certification schemes were based on formalized standards (3), as the majority of the certification standards (13) were industry standards categorized as “national others”, such as IRIS (the International railway industry standard), and the HACCP (Hazard Analysis and Critical Control Points) for the food industry.

Distributive services is the largest service group in terms of number of employees (51% of all employees in the Norwegian service sector in 2004) and relatively easy to standardize. One would therefore expect the number of certificates issued to this sector to be higher than in other sectors. When we include the number of generic certificates issued to the distributive sector (see Table 7), we find that the sector received nearly one third of all certificates in our sample, making it the second largest service sector in terms of certificates. We do however expect the distributive sector to be even larger. The reported numbers of certificates issued according to the certification schemes towards the distributive sector are relatively incomplete. Thus, our figures are probably strongly downward biased.¹⁹

¹⁹ In this figure we have decided not to include the 30000 personnel certificates issued by MENTOR for operating of lifting trucks, cranes, work platforms etc. The reason for not including this figure is because by

E-learning – certification and standardization work hand in hand

Education is the distribution of knowledge. With the emergence of the internet e-learning is becoming popular as it enables interactive tutoring over distances. Consequently is e-learning probably one of the services with the largest potential for international trade.

However, in order to pay for education over the internet, you want to be ensured that the e-learning provider and its educational program hold the expected quality. In Germany there are already quality tests and labels for long distance educational programs in place such as the QSel, TUD Gütesiegel and ZFU (Department for long distance education). In addition, there are several organizations working with quality assessment for further education programs which also operate in the e-learning segment. The current important standards for the e-learning certification programs are the PAS 1032-1 and PAS 1068 which are all specific for e-learning, in addition to the PAS 1037, which is a quality management system standard for educational providers. There also exists an ISO standard for e-learning, the ISO/IEC 19796-1, but this is a guidance standard for e-learning management systems, and not made for certification. The CEN/ISSS Workshop on learning technologies has published workshops agreements for example on good practice in e-learning, but has to our knowledge not made any formalized standards.

DELZert, which is responsible for the quality mark – Qsel - for e-learning, told that they are involved in standardization work at ISO (ISO/IEC JTC1 SC36) to develop further formalized international standards in the e-learning area. The ISO 19796-3 is expected to come in the end of 2008, while the ISO 19796-2 is scheduled about a year later. DELZert's certification schemes are being developed in parallel with the standardization work at ISO, and their most important scheme QSel will be based on the ISO 19796-2. The QSel scheme consists of two parts where one part is the certification of the e-learning educational programs, and the other is certification of the organization providing the programs. The organizational certification consists of two levels where the first is called "basis" while the other is "excellence". DELZert is currently in the process of commercializing their e-learning schemes. Since the scheme will be based on formalized international standards they expect their certification scheme to be applied internationally.

7.2.5. Certification of leisure services

Through the interviews we mapped 6 certification schemes directed specifically towards the leisure industry. Among these were the environmental labels such as the Green key and Nature's best, the star classification system for hotels and classification of camping sites, certified fish tourism and certified tourist offices (see Table 11). All of these schemes were either entirely or partially organized trade associations. Consequently, none of them are based on formalized standards. However, although the schemes are organized by trade associations, half of them are based on international criteria. For instance, the Hotel stars classification scheme is harmonized for Denmark, Sweden and

British law there is a requirement that all personnel should have training in their work equipment, which makes these certificates more similar to authorization, rather than certification.

the Baltics (in addition to a slightly different star classification scheme under development in Norway). The camping scheme has a clear Scandinavian focus, while the Green Key certificate is an international environmental label for the tourism industry administered by the Foundation for Environmental Education (FEE).

Table 11. Certification schemes for leisure services and personnel (result from interviews).

Certification scheme	Service	Type standard
Hotel stars	Tourism	Int. other
Camping card Scandinavia	Camping	Int. other
Green key	Environment	Int. other
Fish tourism	Fish tourism	Nat. Other
Tourist offices	Tourist offices	Nat. Other
Nature's best	Eco-tourism	Nat. Other

The number of certificates issued on these schemes adds to a total of 858 certificates, which amounts to 3% of the total number of certificates. Including the generic certificates issued to the leisure services does only add 107 certificates, and does not change the total picture.

There are basically four factors that can explain why the leisure services have few certifications schemes. Two of them concern the characteristics of the leisure sector, while two of them have to do with how the data were collected in this study. As discussed in Chapter 3 on the service typology, we would not expect many certificates in the leisure service industry. First, because leisure services are difficult to standardize it is hard to build certification criteria. Secondly, the leisure service industry is a relatively small sector²⁰. Along this comes the fact that leisure providers are usually small enterprises, implying that the cost of certification becomes a financial burden to many firms engaged in leisure services. Also large chains, like hotel chains, operate with strong brands. They often see no reason to engage in certification. Thirdly, as mentioned in the beginning of this chapter, the figures on numbers of certificates issued are sensitive to which countries the certification body is located in. The bodies that we interviewed regarding service certification were trade associations located in Scandinavia, which means that the number of participants in the schemes would probably be higher if we would have interviewed a similar organization in Germany or the UK. Finally, one of the certification bodies we talked with mentioned that they constructed their own company specific version of the ISO 9001 certificate where they had added a list of requirements relevant for the tourism industry. We do not have statistics on such company specific schemes, which might further reduce the number of certificates registered for the leisure industry.

²⁰ 9% of all service sector employment in Norway in 2004. This figure is however likely to be somewhat higher in other countries.

7.2.6. Certification of the construction services

In our survey of certification bodies, ITB in Poland was the only certification body specialized in certification of construction services. ITB offers a wide range of certification services within the construction sector, most of them directed toward building products. ITB has 11 certification schemes related to very specific processes in the construction sector. All of these schemes are national and specific for ITB. However, probably because ITB has such a strong position and competence in the market for construction certification in Poland, all of these schemes are accredited by the Polish centre for Accreditation. In addition, ITB has two certification schemes relating to the certification of building laboratory staff and service firms personnel (see Table 12).

Table 12. Certification schemes for construction services (result from interviews).

Certification scheme	Service	Type standard
ITB - services	Buildings thermal insulation	Nat. Other
ITB - services	Execution of anticorrosion works	Nat. Other
ITB - services	Assembling of light curtain walls	Nat. Other
ITB - personnel	Building laboratory staff	Nat. Other
ITB - service	Assembling of light partition walls	Nat. Other
ITB - service	Assembling of suspended ceiling	Nat. Other
ITB - service	Assembling of raised floors	Nat. Other
ITB - personnel	Service firms personnel	Nat. Other
ITB - service	Assembling of fire-emergency gates	Nat. Other
ITB - service	Assembling of doors ++	Nat. Other
ITB - service	Assembling of windows++	Nat. Other
ITB - service	Assembling of fireproof walls	Nat. Other
ITB - service	Thermal processing of concrete ++	Nat. Other

When we include the number of generic certificates issued to the construction industry the sector receives 10% of all certificates issued (see Table 7). This figure might be even higher in reality, especially in the Baltic countries. In the interviews, the construction sector was emphasized as one of the big clients of generic certificates, and in particular the OHSAS 18001 within Occupational Health and Safety. One of the large certification bodies interviewed told that in the Baltics, as many as 20% of their management system certificates were issued to the construction sector. It was pointed to that one of the explanatory factors for the large number of management certificates in the construction sector is that government purchasers of construction services normally require the construction company to implement a management systems standard for OH&S.

8. Certification costs: How large are they really?

Certification is costly. For a certification scheme to be profitable for a company the benefits must exceed the costs. This implies that it is not sufficient with a need for certification, the certification must actually add a value which is greater than the transaction costs of certification, giving the company a net benefit.

This study is focusing on certification bodies and the schemes they administer. Thus, when we look at costs related to certification, we primarily focus on the explicit fees charged by the certification bodies for their certification service. Other and unexplored costs relating to act of certification are significant, but normally indirect. These costs are hard for us to assess, but they are for most companies likely to be significantly larger than the formal costs of certification. One of the certification bodies told us that while the implementation process for most clients took 5-6 months, for some it could take as much as 5-8 years. To control implementation costs and efforts, it is quite common for companies to hire external consultants for professional advice on how to fulfill the standards. Notice though that training and consultancy is usually separated from the certification process in order to protect the third party independency of the certification body. Thus, we do not have access to any data on these costs.

Certification is a conformity process. First the certification body engages an auditor to make an assessment of the company according to a set of criteria. The auditor then writes a report on how the company conforms with the requirements, and the certification body employs the report as a basis to decide on whether to issue a certificate or not.

The costs of certification depend on a variety of parameters. More or less all of the certification schemes we encountered had an element where the cost of certification varied with the size of the company being certified.²¹

Examples of pricing policies

HORESTA's cost structure for their star classification scheme for hotels consists of a fixed sum which they charge all their members, in addition they have a size element where they charge the hotels an extra fee per room the hotel has for rent. CBT is the certification body for charity fundraising in the Netherlands, for their CBT label, they charge an annual fee based on the size of the fundraising. The

²¹ Parameters of size which are used to adjust costs are typically number of employees, turnover and number of geographical units with the company. Some certification bodies have an algorithm on how the certifications costs varies between intervals of employees, others charge a certification rate as a percentage of turnover, while most certification bodies charge the companies per day spent in the auditing process.

Swan, which is the official Nordic ecolabel, has an annual certification fee which is a percentage of the company's turnover. This percentage fee was for several years regulated by law at 0,4% of turnover. For goods this regulation has not been a big problem, because it is only charged for the turnover relating to the specific product with the Swan label. For service companies however, the Swan label is valid for the whole company, not just a specific service. The percentage fee has therefore been charged of the aggregated turnover of the company. This has proved to be too expensive for most service companies, and hence are there very few service companies in Denmark compared to Sweden and Norway who use the Swan label. The Eco-Lighthouse Foundation which operates in Norway charges an annual certification fee based on the number of employees the company has. All the accredited certification bodies, such as Bureau Veritas Certification, DQS, Tüv Rheinland CERT and Metrosert, seems to be operating with a daily auditing rate. These rates vary between 600-1400 Euro per day, with the size of the day rate varying between certification bodies, and in particular which country the certification body operates in.

In the case of ISO 9001, the respondents reported that the number of days it takes to audit a company varies within the range 2-30 days depending on the size of the company. For a small service company with about 10 employees, first time certification will normally take from 2-4 days and cost in the range of 1500-3500 Euro.²² An important point which was emphasized by several of the certification bodies, is that the fees do not increase one-to-one with size. This means that there are economies of scale in certification, which makes the certification burden larger for small and medium sized companies, than for large companies. We discuss this point more thoroughly below.

The auditing rates appear to increase with the general cost level in the countries, hence the lowest rates are found in the Baltics and Poland, while the level in the rest of the North European countries are more or less the same. In fact, daily rates charged for auditing by the same certification body in different countries were reported to vary from about 700 Euro (the Baltics) to 1800 Euro (Switzerland).

After the company has been certified, the common practice is then to have annual audits which costs about half the amount of a first time certification, and then to have a renewal of the certificate every 3rd year. The renewal involves more extensive auditing and costs about two thirds of the initial certification costs.

²² In addition to the daily rate, the certification bodies also normally charge what is called the accreditation or registration fee which are costs not relating to the audit but rather costs of accreditation and administration. The certification bodies also usually charge a small amount for issuing the certificate.

8.1. The cost of accreditation

Our findings indicate that accredited certification schemes are generally more costly than “membership” requirements by trade associations or certification schemes run by ideal organizations. There are several factors which may explain this. First of all are there reasons to believe that the accredited schemes operate with more requirements, including more thorough auditing.²³ Certification bodies that provide accredited schemes are generally more concerned with gaining a competitive edge against its competitors, or to get access into foreign markets.

Furthermore, cost differences can also be explained by the fact that most of the trade association schemes are self financed and non-profit. We also have examples of certification schemes, e.g. for the Eco-Lighthouse Foundation, where the municipalities are part of the certification process and in some cases offer costless certification to companies who want to certify themselves. Although many of the accredited certification bodies are non-profit, the certification schemes themselves are often run with profit in order to finance other activities within the certification body (Consumer Research Associates, 2008).

Accredited certification schemes must also pay for the accreditation service, raising the cost of certification. Accreditation has three types of fees. First we have the application fee which is a fee charged by the accreditation body to start up an assessment of the applicant’s readiness for accreditation. Then we have the pre-assessment fee which is the fee paid to cover the costs for evaluating whether the scheme should receive the accredited status.²⁴ Once the accreditation is received, you have an annual rate which is the fee for maintaining the accreditation. To exemplify, the prices reported at UKAS (United Kingdom Accreditation Service) homepage are 1800 Euro (£ 1410) for the application fee, 1100 Euro (£ 875) per day of assessment towards accreditation, while the annual accreditation fee for product, personnel or management system accreditation is Euro 2500 (£ 2000)²⁵.

Accreditation costs for a certification scheme are set independently of how many certificates the body issue according to the scheme. Consequently will large certification bodies and popular certification schemes with many certificates issued, have lower accreditation costs per certificate

²³ This is not to say that one certification scheme is better than the other, rather it is a consequence that they have different scopes. Industries that face problems with “bad seeds” and want to improve their reputation tend to make a list of membership requirements to show the “seriousness” of the industry e.g. documentation that the companies are paying their taxes or that their workers get paid according to the regulative.

²⁴ This fee is charged in the form of a daily rate, the total amount depending on how many days it takes to evaluate the certification scheme.

²⁵ http://www.ukas.com/Library/downloads/Information_Centre/Terms%20and%20Conditions.pdf

issued. For smaller certification bodies or less known certification schemes with few certificates issued, may the accreditation costs per certificate be significant. Imagine a small certification body which offers a certification scheme for which it issues and maintains a total of 25 new and old certificates per year. With an annual cost of Euro 2500 for accreditation, the costs of certification will increase the cost of each certificate with Euro 100 given that the accreditation fee is equally divided. A small company with about 10 employees was reported to pay on average about Euro 1000 to keep the certificate once certified, hence does accreditation lead to a cost increase of 10% for certification in this case.

8.2. Cost of certification and SMBs

The service sector is characterized by many small sized companies. In the survey most of the certification bodies reported that the majority of their service providing clients is small or medium sized companies with less than 50 employees. The survey respondents reported that certification costs increase with the size of the company, but with a ratio smaller than one-to-one. There are in other words economies of scale in certification, which makes “the certification burden” relatively more easy to carry for large companies.

Small and large scaled fund raising

Centraal Bureau Fondsenwerving (CBF) certifies fundraising organizations collection money for charity. The CBF certificate suffices as a proof that the charity organization do the fundraising effectively, e.g. that the costs of fundraising do not exceed 25% of the revenues from the fundraising. The CBF seal of approval can be applied by charity organizations with a fundraising of more than 120 000 Euro. The seal of approval was established in 1996 and is accredited by the Dutch Accreditation Council. The scheme has been very successful, and the seal has become a de facto requirement by city councils in the Netherlands for charity organizations to be given permission to collect money on the street.

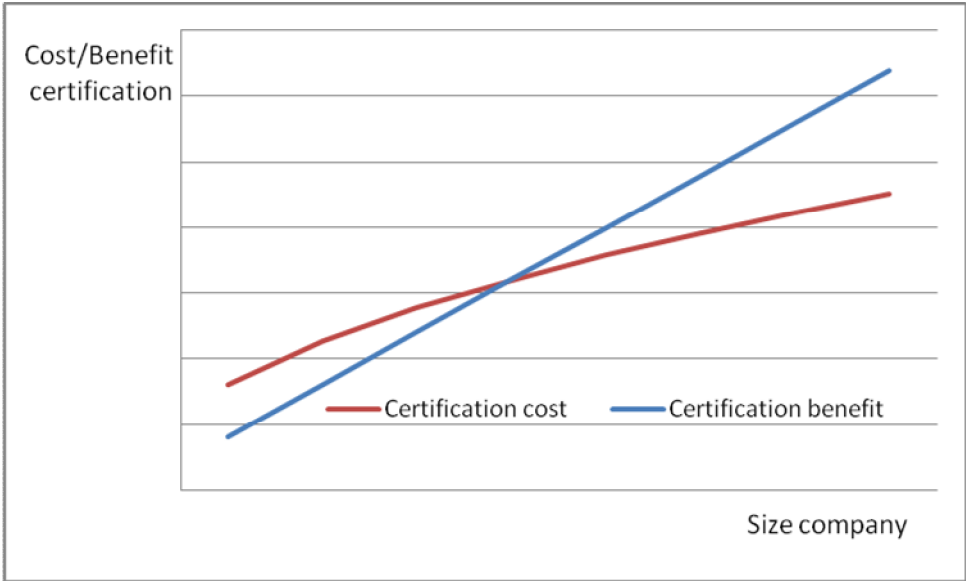
However, there is also a demand in the Netherlands for a quality label for organizations with less than 120 000 Euro in fundraising. For small organizations, and organizations who have less than 3 years of experience, CBF has therefore established a “Certificate of no objection”. The criteria for the certificate are virtually identical to those for the seal of approval, but with regard to certain aspects this assessment is slightly less stringent. The problem with the “certificate of no objection” is that the costs related to the requirements are too big. CBF experienced for example that the requirement of an accountant to do the bookkeeping was too expensive for the smaller organizations. At the moment being CBF is working to see if they can make a certification scheme which can provide the smaller fundraising institutions with a quality label, and at the same time keep the costs to a manageable level.

The problem that CBF faces in its attempt to cut certification costs for the smaller fundraising organizations illustrates the problem with certification costs for smaller companies. On one hand certification brings with it benefits for the company in the form of more customers or the ability to charge a higher price for its services. On the other hand, the costs of the control procedures necessary to make a reliable conformity assessment may simply be too high to make the certification feasible.

Figure 10 illustrates this point. In the figure we have drawn the cost and benefit curves of certification as a function of company size. We have assumed that the benefits for the company increases one-to-one with the size of the company. This is shown in the figure by the linearly increasing blue line. Certification also involves costs in the form of fees to the certification body, or indirect costs in the form of adopting a standard. These costs are not increasing linearly with size, illustrated by the decreasingly growing red line. The point where the cost and benefit curves intersect is where the costs are equal to the benefits. At this point, the company is indifferent between being certified or not. Moving to the right of the intersection point you find the larger companies that prefer to be certified since benefits exceed costs²⁶. To the left of the intersection point you find the companies which are so small that the costs of certification exceed the benefits.

²⁶ In the figure it looks as if the net benefit of certification continues to grow “eternally” with company size. This does not need to be the case. Many large corporations have built such strong brands for themselves that the signaling effect of external certification is redundant.

Figure 10. Illustration of cost and benefit of certification as a function of company size



8.3. Standardization costs and services

Costs related to standardization processes are outside the scope of this study, however it is worth to mention that in CEN's "Final report on European Commission Programming Mandate M/340 in the Field of Services" they focus on the lack of financial resources to initiate the standardization work.²⁷ One possible explanation for this problem of financing could be that the service sector consists of many small companies that enhance problems of coordination.²⁸ The problems of financing the standardization process might indicate that small service companies will also be reluctant to spend resources on certification.

²⁷ <http://www.cen.eu/cenorm/sectors/sectors/services/finalreportm340.pdf>

²⁸ On the other hand, there is also a certain risk that the problem with willingness might be more fundamental than one are willing to admit, and rather reflect an inability to pay.

9. International recognition: What are the determinants?

More than half of the survey respondents reported that they have foreign clients, and ten certification bodies had foreign branches or subsidiaries. Consequently, there is good reason to claim that certification in Northern Europe is a highly internationalized service. This is an important aspect to the extent that international certification schemes facilitate service trade between countries. In Chapter 11, we return to the question on whether certification activities actually go hand in hand with international trade in the area of services

One can easily imagine a situation where you have an international certification scheme where certificates are alike in all countries, but where foreign certificates are not accepted. Not because the market is unfamiliar with the certificate, but because they don't trust the validity of the certificate issued by the foreign located certification bodies. In order to achieve an efficient international market for certification, it is therefore necessary to have a system with mutual recognition of certificates issued from bodies in other countries. If no such mechanism is in place, the companies operating in more than one country will need to pay for multiple certifications. This is clearly an impediment to international trade.

The majority of the responding certification bodies reported that their certificates are recognized abroad. Some of them assumed so since they had no complaints from clients operating abroad. The surveyed certification bodies point out 3 conditions which are viewed as important for their certificates to be recognized abroad.

- 1) That the scheme is based on an international standard, usually ISO or CEN standard,
- 2) That the scheme is accredited, and/or
- 3) That the certification body has local subsidiaries abroad, or that it is part of an international network, such as the IQNet Association.

That the standard plays an important role for whether the certification scheme becomes national or international, comes as no surprise. If the standard behind the certificate is not known internationally, the certificate will have no signaling effect in other countries. However, a certificate based on an international standard is only sufficient for the certificate to be internationally known,

not for it to be internationally accepted. For this to happen, it is required that the issuing certification body is perceived as independent and reliable. This is exactly the role of accreditation.

9.1. The role of accreditation for the international recognition of certificates

As explained in Chapter 4, accreditation is there to ensure that the certification body is competent to issue certificates, while the multilateral agreement (MLA) between the European accreditation bodies is in place to ensure that accreditation is accepted independent of which country the accreditation comes from. Consequently, whenever a certificate is accredited it should in principal be accepted in other countries the same way as if it was issued according to a domestic accredited scheme.

Accreditation by national accreditation bodies and the MLA is a potentially important tool in the mutual recognition of certification schemes across borders. About half of the certification bodies in our survey had accredited at least one of their certification schemes. Two thirds of the accredited bodies stressed that accreditation is important for their certificate to become acknowledged in other countries.

Given the importance of the accreditation institute it is therefore striking that there are few accreditations of service specific certification schemes. Those we find are also confined to management systems (EN 45012/ISO 17021) and personnel certificates (ISO 17024).²⁹ Through conversations and correspondence with the accreditation bodies in the UK (UKAS), Finland (FINAS), Denmark (DANAK), Norway (NA) and the Netherlands (RvA) the absence of accreditation of service specific certification schemes was confirmed. The only body who reported any accredited service specific schemes was RvA. Their portfolio of accredited service specific certification schemes was however limited to a few schemes in the construction sector, such as removal of asbestos and maintenance of heating-installations, in addition to the CBF-seal in fundraising. The absence of accreditation for service specific certification schemes means that the service sector is not part of the mutual recognition systems which the EA MLA (multilateral agreement) provides. In principle this implies that certificates issued to the translation companies in Finland could risk not to be accepted

²⁹ One exception is a certification scheme towards companies providing assisting services related to fire alarm systems (accredited by the German accreditation body DATech). In addition, we have the CBF-seal for fundraising organizations which is accredited by RvA in the Netherlands. Perhaps somewhat confusing, but both service specific certification schemes and process certifications fall under the category “product accreditation” made according to the EN 45011 standard.

in other European countries. The lack of accreditations related to service specific activities, may work as a damper on trade between countries in the EU.

Accreditation is a market driven process. One of the reasons we were given why there are so few accredited service specific certification schemes is simply because there has not been any demand for it. Accreditation of schemes without any prior accreditation practice is an expensive process. In fact, the certification body is not even guaranteed that the certification scheme will be possible to accredit. These factors might explain why there have been so few accredited service specific certification schemes.

The story becomes however even more complicated. Even though the service specific certification schemes had been accredited, it is not given that they would have been part of the MLA anyway. According to the Finnish accreditation body FINAS there has been a discussion at the European accreditation (EA committee) whether accredited service specific certification schemes should be a part of the EA MLA. In fact, as more and more accredited schemes develop, it seems to be an uncertainty related to which accredited certification schemes are actually included in the MLA. Very few accredited scheme are automatically accepted as part of the MLA, and if there is a positive list on which schemes are part of the MLA, this list is very short, probably only including the common management systems certification schemes such as the ISO 9001 and ISO 14001.

9.2. The role of alternative accreditations

For many certification schemes accreditation is not an option. This is particularly the case for certification schemes based on standards which are not formalized. There are many certificates which are internationally known and accepted without being accredited, and definitely not a part of the MLA.³⁰ Examples of such are the SA 8000 (Social accountability), OHSAS 18001 (OH&S), IRIS (Railway), IPMA 4 level certification system (Project managers) and QWeb (Security of e-commerce web sites). For some of these schemes, such as the SA 8000 and IRIS, there exist alternative “accreditation” bodies which accredit the schemes internationally. For instance, IRIS is accredited by UNIFE - the Association of the European Rail Industry, while the SA 8000 certification scheme is accredited by the Social Accountability Accreditation Services. Both these “alternative accreditation” systems only seem to have accredited large certification bodies.

³⁰ Even though some of the schemes are based on standards are accredited, it is doubtful that they are a part of the MLA.

The IPMA 4 level certification system is based on the standard called the IPMA Competence Baseline (IBC). Although this is not a formalized standard, and there is no accreditation scheme in place, the IPMA certification scheme is a successful international certification scheme. The IPMA certificate simply seems to be recognized because it is an international certificate apparently limited to only one certification body in each country. HORESTA, the Danish trade association for hotels, restaurants and tourism, developed their star classification scheme in cooperation with the Ministry of Trade, while the Eco-Lighthouse Foundation has an arrangement where the local municipalities, often the mayor, issue the certificate. Both the Flower and EMAS are certification schemes backed by the European Commission, while the Swan is initiated by the Nordic Council of Ministers.

MENTOR is a UK based company which provides training and issue certificates on operation of lift truck, cranes and other workplace machines. They told that within the area of forklift trucks in the UK, there are 6 competing accreditation bodies for which MENTOR is accredited by 3 of them. Each of these accreditation bodies have their own standard which differs from the others'. MENTOR emphasized that the existence of more than one standard creates confusion on the compatibility of certificates according to different standards, and that they clearly would prefer less certification schemes in the market for lift truck certificates.

9.3. The roles of size, international networks and branding

As an alternative to accreditation, certificates tend to be accepted in other countries if the certification body is located with a subsidiary in the local market, or if it is part of an international network. Large international certification bodies have an advantage of being well known to many agents, e.g. through an established brand. Consequently, for certification bodies such as Bureau Veritas, DQS or DNV, their names run in front as a quality label. Regardless of whether the certification is accredited or not, the certificate is seen as legitimate because it is issued by a well known company³¹. A couple of the smaller certification bodies with mostly domestically operating clients, told that even though their certificates were accredited and therefore should be recognized abroad, clients which had as an ambition to export their services would rather use a certification body with a more familiar name in the countries they would operate.

³¹ This is not to say that the certification schemes of these companies are not accredited. On the contrary, large professional certification bodies tend to seek accreditation for all their schemes whenever feasible.

International certification networks can play the same role. Four of the certification bodies in our survey are part of IQNet, and claimed that the IQNet logo on their certificates is more important for international recognition than the accreditation mark. The QWeb scheme is offered by members in the IQNet Association. The purpose of the scheme is raise trust and confidence in electronic business by certifying web pages where you have electronic trade. Because of IQNet's strong position, the scheme is internationally recognized.

Many of the interview objects emphasized that their certification schemes were accepted abroad because they were based on international standards. However, there are clear examples of reversed stories, where certification schemes can lead to the internationalization of a standard. Take e.g. the British standard on business continuity (BS 25999). This standard is according to our categorization a formalized national standard. However since it is applied abroad for certification, e.g. in Korea, it becomes *internationalized* through a certification scheme. For large international certification bodies operating in more than one country, it is common to adopt the successful national standards from one country, and internationalize them by implementing the same standard as basis for a certification scheme in other countries where it operates. The IQNet Association is a global alliance of 36 certification bodies and more than 200 subsidiaries, which has put this mechanism into system. When their local members present a new successful certification scheme based on a national standard, IQNet can contribute to spread knowledge about the scheme to members in other countries, raising the likelihood of a national standard becoming international.

9.4. The role of competing Certificates

One of the largest impediments for any certification scheme to receive broad international recognition is the presence of other certification schemes based on competing or alternative standards. The more alternative certificates there exist, the more confusing and resource demanding it is for the customer to understand the relevant market for certificates. To avoid duplication between standardization at international and European levels, CEN and ISO set up an agreement regarding coordination and mutual adoption of standards (ref. the "Vienne agreement", 1991). In addition to this, there also exists an agreement between CEN and the national standardization bodies, which states that if there exists an EN-standard on a specific matter, there cannot be a parallel competing formalized national standard. However, although there are internal rules to ensure that there is only one international *formalized* standard for each service or process, one cannot control the existence of other "un-formalized" competing standards.

In fact, 17 of our 30 interviewed certification bodies answered that there were competing certification schemes based alternative standards in one or more of the markets which they operate. Even though many of the schemes within the same area are not completely compatible and to a certain extent can be regarded as complementary to one another, companies looking for certification are in reality content with having one certificate, which *de facto* brings the schemes into competition. For instance, it was mentioned that generic quality management system certificates, such as the ISO 9001, is in competition with service specific schemes which also focus on quality. This is because companies tend to be more concerned about the signaling effect of the certificate, e.g. quality services or environmental friendly, rather than the actual content of requirements behind the certificate.³²

Where competition plays a role: Examples

In Denmark it was mentioned that the information security management system, ISO 27001, is competing with the Danish Auditing companies, who offers their own scheme. In Denmark there is also an alternative hotel classification scheme to the one offered by HORESTA with 7(!) stars. In Poland the PN/N/18001 on Occupational health and safety is more customized to Polish law and regulations and is hence a popular alternative to the OHSAS 18001. In Finland you have both the European Computer Driving License (ECDL) and the Finnish computer driving licenses which certify IT-skills. CITO which offers the IPMA project manager scheme in the Netherlands told that PMI USA offers a competing scheme based on other criteria. The Norwegian Coach Association is working on the development of a new standard for certification, and could tell that the International Coach Federation (ICF) already has an alternative certification scheme in place. Mentor, which among other thing trains and certifies fork lift truck drivers told that there are 6 different accreditation bodies in the UK market with 6 different standards. The National Federation of Service Industries in Norway (NHO Service) which offers the “clean development” scheme for industrial cleaning companies, told that there exists a competing membership-scheme “approved cleaning”. Within the health sector in Finland the Kings Fund had been working on improving the quality of the sector, but has now been challenged by the ISO 9001.

The largest number of competing schemes based on alternative standards is found within the area of environmental certification. The magazine “Verträglich Reisen” reports on their website that there exists more than 50 environmental certification scheme and labels across Europe. From our survey of certification bodies we identified a total of 8 schemes related to environment. These were

³² In addition to alternative certification schemes provided by competing certification bodies, it is also often the case that certification bodies themselves offer alternative certificates within the same area. Certification bodies often supply more than one certificate e.g. within food. While some retailers require the BRC (British Retail Consortium) certificate from their suppliers, others prefer that their suppliers are certified according to the IFS (International Food Standard). The existence of multiple standards is not only a problem for the certification body or the retailer. It may also be a problem for the supplier which may have to take the cost of multiple certificates in order to satisfy retailers with different demands.

respectively the ISO 14001 (International, generic), EMAS (European, generic), the Swan (Nordic, generic), the Flower (European, generic), The Green Key (International, leisure), the Eco-Lighthouse Foundation (Norway, generic), Nature's best (Swedish, leisure) and EfbV Waste management facilities VO (Germany, distributive). The Green Key regarded itself as complementary to the EMS, but in competition with the Swan and the Flower. Nature's Best said they had both cooperation and competition with the Green Key. When asked about competing certification schemes, one third of the certification bodies in our survey brought up environmental schemes as an area with many competing schemes.

The EU Services directive acknowledges the importance of compatibility of standards in order to avoid too many competing certification schemes in the European market. Article 26 (5) in the directive states the following: *Member States, in cooperation with the Commission, shall encourage the development of voluntary European standards with the aim of facilitating compatibility between services supplied by providers in different Member States, information to the recipient and the quality of service provision.* Although this article was directed towards development of new standards, the interviews with the certification bodies show that the compatibility issue for standards is highly relevant also for existing standards.

9.5. The role of compulsory and de facto compulsory certification schemes

The easiest way to ensure that a certification scheme becomes widely applied both nationally and internationally is to make it compulsory, moving from voluntary business standards to public regulation.³³

Examples of compulsory certificates

In the Netherlands the certification of extraordinary civil servants (fire fighters, train conductors etc.) called BOA. This certification scheme has been delegated by the Dutch Ministry of Justice to CITO (for a limited time period) and is compulsory. CITO is also working on a scheme for certifying advisors on energy labels. In the Netherlands it is compulsory to have an energy classification of your house when you sell it. Today this labeling is performed mainly by real estate agents, but since they do not have the competence to measure energy efficiency of houses, there is a law under development which will make certification of advisors on energy labels compulsory. This law will take effect on the

³³ For example, in all advanced countries you need a concession from the government to run a bank or insurance company. This concession can also be thought of as a "mandatory certificate issued by the government" to ensure that the financial institution fulfills the required amount of equity, has a realistic budget for its business and employees competent personnel.

1st of November 2008. Another example is the European Pressure Equipment Directive (PED) 97/23/EC. Here, it is a requirement that the pressure containers are made by qualified personnel, which in turn leads to a requirement of certified welders. MENTOR told that in the UK it is required by law that all employees must have received training on their work equipment. It does however not specify any specific standard to be used. Usually, the awarding body sets a standard that it regards as good training.

Another way to increase the international use of a certification scheme (which is the goal of the European Commission), is to allow it to become “de facto compulsory”. That is, instead of having a regulation that requires a specific certificate, you let the market demand a certificate. The growth of de facto compulsory schemes is an efficient way to ensure that the schemes have a true function. For instance, one could imagine that insurance companies require customers to install fire alarm system, put up by a certified agent. This way you would have a mechanism that makes certification of fire alarm installers de facto compulsory.

We asked the certification bodies of the existence of any such compulsory or de facto compulsory certification schemes for the service sector. Very few certification schemes in the service sector are compulsory by regulation³⁴, although many of the schemes had parallel requirements with the law.

We found few de facto compulsory certification schemes which had led to the certification of entire industries. The closest example would be the construction industry in the Baltics. Two of the certification bodies told that when public organization invites tenders for construction services in the Baltics they normally require that the companies are certified according to the ISO 9001. This has lead to a large ratio of certificates in the Baltic construction sector.³⁵ Similarly, in Germany the government is giving incentive to be ISO 14001 and OHSAS 18001 certified. For instance, it is easier to get recycling and waste management contracts if you are a certified according to the EfbV Entsorgungsfachbetriebe VO (waste disposal) environmental scheme.

Some of the bodies issuing environmental certificates reported that some municipalities require environmental certification. The Eco-Lighthouse Foundation in Norway told that some municipalities

³⁴ Several of the bodies mentioned the Quality Management Standard for Medical Devices, ISO 13485 as a compulsory scheme regulated in the EC Directive 93/42/E(E)C on medical devices. This scheme is however not relevant for the service sector. Another example which often came up was the de facto requirement from the automotive industry that their suppliers are certified according to *the* ISO 16949 Automotive sector quality management system.

³⁵ This is also confirmed in the data from the ISO Survey of Certifications where construction is the sector with the by far largest number of ISO 9001 certificates in Estonia (110) and Lithuania (174), making out respectively 43% and 40% of the total certificates in these countries, while the European average for the construction sector is 25%. Latvia is however somewhat below average with the construction sector having 20% of the ISO 9001 certificates.

require that their schools, kinder gardens etc. are Eco-Lighthouse certified or/and that their subcontractors are certified. The Swan is also required by some municipalities, while in Denmark used car sellers are required by the municipalities to be ISO 14001 certified. In Germany some e-learning programs are required to be certified by the Governmental Centre for long distance tutoring (Staatliche Centralstelle für Fernunterricht (ZFU)). The European Computer Driving License (ECDL) is an integrated part of the program in some business schools in Finland, making the certificate de facto compulsory if you attend the school. In order to collect money on the streets in the Netherlands you must have permission from the city council to do fundraising for charity on the street. Since the CBF-seal is a good way to know whether the fundraising institution is well managed, the city councils normally require the seal to do fundraising. Consequently do most of the fundraising organizations in the Netherlands have the CBF-seal.

Most of the de facto compulsory certification requirements are national in scope. A certification scheme which is de facto compulsory in one market, does not have to be de facto compulsory in other national or local markets. In addition, two relatively similar schemes may be de facto compulsory in two different markets. We see this tendency within environmental certification. In this situation foreign suppliers need additional certification to get entrance into other markets. This is a real impediment to international trade in services, especially since service providing firms are dominated by small- and medium sized firms which can hardly afford any certification at all.

As indicated in the EU services directive, government purchases can play an important role in coordinating de facto requirements across borders in their public tenders. According to the service directive, governments will most likely not be allowed to require any specific national certificates, as this would be a discrimination of foreign companies.

On the other hand, we also found examples of requirements of specific certificates which have lead to an internationalization of the certificate. Within the market for welding services, it is a widespread requirement in the industry, that the welder has received an accredited certificate according to the EN ISO 9600-series. Lately there has been a large demand for foreign welders to come and work in the Norwegian oil and gas industry. Consequently, the fact that the welding certificate is de facto compulsory in Norway leads to an increased demand for the certificate issued by the Polish certification bodies. This illustrates how the requirement of a specific certificate from a big demander of service can lead to an internationalization of the scheme. A different example is Shell's requirement that all project managers should have the IPMA project manager certificate. Since Shell

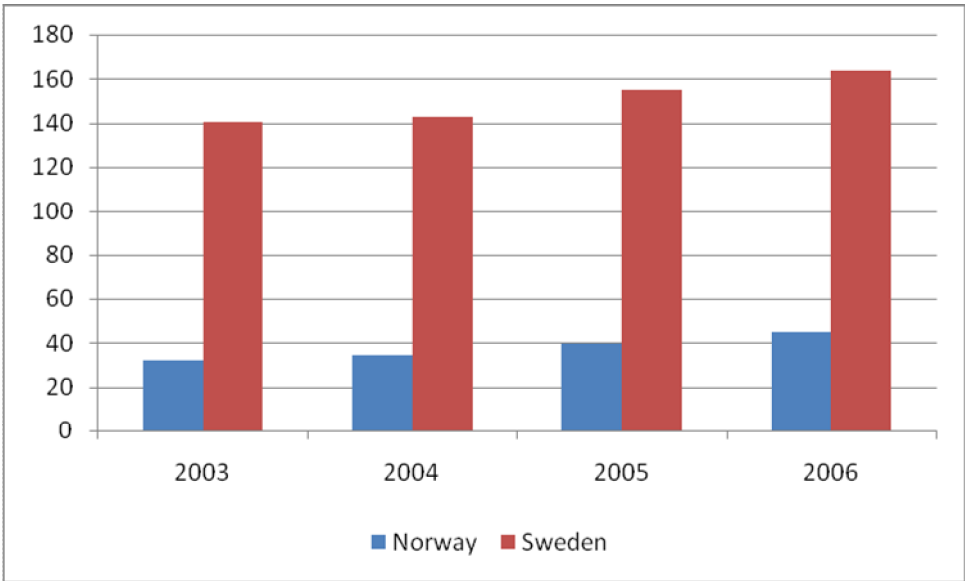
is a large company with operations in more than 110 countries, the implication is that the scheme will be spread all around the world.

10. The future potential for certification activities in Northern European Service sectors

10.1. Recent market developments: Some indicators from Norway and Sweden

To describe in what direction the certification market is going, we have studied accounting data on certification body turnover in Norway and Sweden. The data allows us to follow the development and trends over time. Figure 11 shows the development in turnover in millions of Euros for certification bodies in Norway (blue column) and Sweden (red column) from 2003-2006. Turnover increased in both Sweden and Norway over the period, indicating that there is a growing demand for certification. Over the four year period the Norwegian market grew 40%, while the Swedish market grew 16%. The figure also shows that the Swedish certification market is significantly larger than the Norwegian, also when correction for the size of the economies. One possible explanation is that the Swedish economy is populated by larger companies which typically demand more certification than smaller ones.

Figure 11. Turnover in the market for certification. Sweden and Norway, 2003-2006, Mill. Euro



Unfortunately, the accounting data does not allow us to separate the certification bodies' goods certification activities from certification activities directed towards service providers³⁶. However, from the interviews it is revealed that the certification market for service providers and personnel is growing. Out of the 28 certification bodies which had started to issue certificates, 18 had registered growth in certificates issued to the service sector over the past three years, 6 reported a stable pattern, while only 4 reported a decline in number of certificates issued to the services sector.

An important notion here is that some certification bodies have already reached close to full coverage in the market which they operate. Hence, growth can only come if the number of players in the market grows. For instance, CBF is the only accredited organization certifying charity organizations in the Netherlands. After they started the scheme in 1996, they had strong growth in number of new certificates issued in the period from 1998-2005. At that point of time, they had reached close to full coverage of the donated money in the market. The same is also the case for HORESTA which has about 75% of the market for hotel stars classification. Most of the remaining market being small inns which are out of the scope of the classification scheme. The only reason why they had had growth in the number of scheme participants the past three years was merely because the industry itself was growing.

10.2. Views on future potentials expressed by the certification bodies

As the certification bodies work close with the market on a daily basis, they are probably the players in market with the best overview and competence on market trends and potentials. We posed the question to each of the certification bodies whether they see a need or potential for more certification schemes (and standards) within the service sector. For international schemes to be successful it was pointed out that they should be directed toward large or growing markets with a large potential for international trade and markets where there has been a problem with varying quality of services which is hard to assess for customers.

It is broadly acknowledged among the survey respondents that the service sector makes out the largest component of our economy. They also realize that the service sector has gradually been

³⁶ In fact certification bodies often offer a range of services such as consultancy, courses and training, laboratory etc, which we can't separate from each other in the accounting data. However, on average the growth in turnover for certification bodies is likely to reflect a growth in certification services.

professionalized and that the potential for certification in the future is within this sector. While they previously had all focus on certification of manufacturing companies, they now see a potential for significant growth in demand for certification services among service companies. For the certification bodies in our survey that issue certificates to both the goods and the service sector, the ratio of certificates issued to the service sector varies in the range of 20-50% of the total number of certificates issued. DS Certifisering reported that the share will grow from 40 to over 50% over the next 3-4 years. DS Certifisering argues that this is a natural development as production is gradually moved out of the country, and the Danish economy gets dominated by service providing companies. There are good reasons to believe that the scenario outlined by DS Certifisering for the Danish economy is representative for other North European countries.

Although most arrows point in the direction of more certification of services providers, temporary conditions such as the business cycle may calm demand. For instance, the general economic downturn which has hit the Baltics perhaps harder than most other European countries, have had a negative impact on the general demand for certification services. The certification industry in Europe witnessed a severe downturn in activity in 2002. Bureau Veritas Certification reported that their certification activity dropped to half, an experience they shared with the entire Norwegian certification industry. The downturn was partly due to the downturn in the business cycle, however the drop in demand was also a consequence of a saturated market which had grown through the 90s.

Although the majority of the surveyed bodies claim that there is a need for more certification schemes within the service sectors, some will focus more on getting more service providers certified within existing schemes. A few bodies actually claimed that there are already too many schemes in place and that the resources should be used on coordinating the existing ones (see the box on MENTOR).

Management system certifications dominate the market towards service sector firms today, and many of the bodies claimed that such schemes should also be the in focus in the future. Some of the certification bodies expressed skepticism to having certification schemes for every specific service as they argued that it would mainly contribute to more confusion among customers and consumers (not much different from the label market in goods). There was a clear tendency among the surveyed certification bodies to focus on the market for purely generic management systems. There were varying opinions about the potential for tailor made management systems for specific service groups.

10.2.1. Generic certification schemes with future growth potentials

Generic management systems schemes focusing on security and risk minimization, was brought up by several of the certification bodies as certification schemes for the future. Some of these are already quite well established such as certification of Occupational health & safety (OHSAS 18001), food security (ISO 22000) and information security (ISO 27001).

A certification schemes which today are less widespread, but which is thought of as having potential for the future is for example certifications based on the Social Accountability 8000 (SA 8000) standard. This is a private international standard owned and managed by the Social Accountability International (SAI), and is build on principles from thirteen different human right conventions. Certification according to this standard can be highly useful for e.g. subcontractor companies from the third world who wants to prove to their customer that their company provides a humane work environment for their employees. The scheme has its own accreditation body Social Accountability Accreditation Services (SAAS), and many of the largest certification bodies in Europe already issue SA 8000 certificates today.

Supply chain security (SCS) (ISO 28000 series) is also pointed out as a generic standard with strong potential. Supply chain security (SCS) is growing more important with increasing trade, outsourcing and transportation. SCS reduce risks to people and cargo within the supply chain, and although it first became an ISO-standard in 2007, Bureau Veritas Certification reported that they already use it for certification purposes in the transportation sector.

CEN is also working on SCS standards. In November 2006 the CEN Expert Group on SCS (EG SCS) published a report where they indentified the need for European standards on supply chain security³⁷. In the end of 2007 the European commission issued a mandate to the EG SCS where they asked them to develop a CEN SCS standard within 3 years time.³⁸

³⁷ <http://www.cen.eu/cenorm/sectors/sectors/services/finalreportcenscsnovember2006.pdf>

³⁸ In the mandate it said that *the main rationale for the development of a standard/standards in this area is that no appropriate security standard or legislation for EU internal market transport activities is available and some security gaps between the various links in the supply chain have been identified*. The work should not however overlap with the existing ISO-standards on SCS. In addition has CEN just established the project committee (TC) on Airport and Aviation Security Services May 2008. The initiative to start this work was made by the Austrian National Standardization Body³⁸, and might very well be relevant for certification of private security companies as the standard will include requirements on the organisation, personnel management and method of practice of private security companies offering civil aviation security services.

One of the large certification bodies focus on the potential and importance of certification of integrated management systems (PAS 99)³⁹. For a company to have a complete management system it is important to focus on more than one parameter. The integrated management is a certification scheme that aligns the company's processes and procedures into one holistic structure that enables it to run its operations more effectively. Many companies have just a certificate on their quality management system, typically ISO 9001, while other aspects of their activity such as environment, occupational health & safety, business continuity, information security and supply chain security have not been certified. There is a huge certification potential to approach clients who have already certified one aspect of their activity in order to make an integrated certification of all important management systems parameters. PCBC in Poland mentioned they had just started to issue certificates on a Polish standard on anti-corruption. This certification scheme is used in combination with the ISO 9001, which assures that the company works to continually improve its services, in addition to reducing the risk of corruption in its business.

The ultimate risk for most companies, and especially within high risk service areas such as finance, telecommunications, transport and the public sector, is the risk of business disruption. The BS 25999 part 2 on business continuity management is already in use for certification purposes, and is expected to play an important role for certification within the service sector. The standard is based on best practice within business management, which focuses on both minimizing the risk of disruption in addition to maximizing the probability of a quick recovery in the case when disruption occurs.

CHESSE. The new ISO 9001 for services?

As a response to the European Commission's (EC) second programming mandate in the field of services, the CHESSE working group has recently done a feasibility study on the potential for a generic standard for service providers⁴⁰. There are high expectations on the working group's recommendations as such a standard may have the potential to create a solid basis for cross border trade of services⁴¹. The standard is supposed to be in the spirit of the ISO 9001, however without so much focus on assessment of objectives and continually quality improvement, and rather focusing on quality in service delivery.

The approach of the CHESSE working group has been to focus on characteristics that are common to all service providing companies. One factor that is found common to all of them is customer relations. Trough talks with central members with the working group some of the basic principles behind what will the working group's recommendations to the European Commission was explained.

³⁹ PAS is an abbreviation for Publicly Available Specification, and is a so called informal standard (not national standard).

⁴⁰ CHESSE is an abbreviation for "CEN's Horizontal European Service Standardization Strategy".

⁴¹ The CHESSE working group's feasibility study is already finished, and is expected to be handed over to the European Commission sometime in the autumn 2008. In the report there will be some recommendations to both CEN and EC for further work on a generic standard for the service sector.

Many of the ideas that come forward seem to resemble the ISO 10000 series on quality management and customer relations.

The service delivery process can be divided into three steps: 1) before the service provision, 2) during the service provision and 3) after the service is provision. All of these stages can be standardized with regards to how to manage customer relations. Before the service delivery it is for example important to set the right expectations with the customer by providing information upfront of what to expect from the service. While after the service there could be standardized ways on how to handle for example billing and payment, disputes with customers, complaints from customers and other feedback from customers. The idea of the CHEESS working group is also that there should be standardized ways to handle the feedback from the customers constructively so that it can be used to improve the service and facilitate the innovativeness in the service. Since the recommendations from the working group on a generic service standard are still to be published, it is yet not clear whether such a standard will be designed in such a way that it is suitable for certification.

10.2.2. Management systems for specific services – efficient specialization or simply confusion?

The most famous sector specific management systems standard is the ISO/TS 16949 for the automotive sector. Within the service sector, ISO has developed own guidelines on how the ISO 9001 should be implemented by the health sector (IWA 1), education sector (IWA 2) and local government (IWA 4)⁴². These are not own standards, but simply guidelines to facilitate the implementation of ISO 9001 in these sectors. In addition to the ISO standards there exist private service specific versions of the ISO 9001 such as the IRIS standard for the railway industry, and the TL 9000 for the telecommunications industry.

The certification bodies in favor of service sector specific versions of the quality management system standard argued that the ISO 9001 is too generic and that it is initially designed for manufacturing companies. TÜV Rheinland CERT for example could tell that there was a demand in the market from service industries for tailor made versions of the ISO 9001. However as there was no sector specific ISO standards available, it was common that certification bodies made their own custom made versions of the ISO 9001 on request from the specific sectors. TÜV Rheinland had for example made a version of the ISO 9001 specifically for the tourism industry. However, as each certification body operate with their own private (unaccredited) specific versions of the ISO 9001 it becomes confusing for the customer that the certificates from different certification bodies are not completely compatible. TÜV Rheinland therefore emphasized the need for harmonized sector specific versions of the ISO 9001.

⁴² An International Workshop Agreement (IWA) is one of several ISO alternatives to International Standards for cases where swift development and publication takes priority. Compared to the usual ISO process of developing International Standards through its technical committee structure, IWAs are developed in open workshops and organized by a national standards institute. The documents are approved by consensus among participants in these workshops.

The certification bodies that are against the sector specific versions of the generic schemes argue that these schemes are in competition with the generic certification schemes and that they add little value from the generic ones, while adding much confusion on how the standards relates to each other. When asked the question on whether there is a need for more certification schemes in the services sector, DS Certifisering estimated that the certification ratio of service providing companies in the Danish economy was somewhere between 3-6%, and that the main potential is to increase the interest of certification according to management systems using existing certification schemes.

10.2.3. Future personnel certification – problem solvers and key personnel

In addition to management system certification, quite a few of the certification bodies emphasized personnel certification as an important activity for the future. CITO which certifies project managers (IPMA-certificate) said that that they had witnessed a fantastic growth in the demand for personnel certification, and that they are going to focus on more generic certification schemes for personnel such as the IPMA-scheme. One potential area that was brought up was the certification and documentation of informal qualifications, such as different types of work experience. Cito was involved in the program called “EVC - Knowledge Centre on the Validation of Prior Learning”, which certify that you have achieved certain skills independent on whether it is learnt from formal or practical learning⁴³.

Many of the certification bodies said that they had witnessed a growing need for certification of key personnel with important/critical tasks in the society, and that we would probably see more of such schemes in the near future. Specifically, the bodies pointed at IT-skills within finance, specialists in "pension schemes", service competence e.g. for cleaning personnel, hairdressers, electricians and electrical controllers of houses, accountants and controllers of the energy efficiency of houses.

10.2.4. The future of service specific certification schemes – are the markets big enough?

Translation services (EN 15038) was brought up by the certification bodies as a service specific certification schemes which they believed would be future success. Although the translation services industry is quite small and therefore has a limited potential for number of certificates issued, the industry is growing with the process of a more integrated EU and the general trend towards increased internationalization. In addition, the industry has had problems with some translation

⁴³ <http://www.info-civilservice.net/member/vpl.htm>

companies providing bad quality, creating a demand for the good companies to signal their professionalism through a certificate.

Both trade associations involved in the labeling of tourism activities believe in a growing number of future schemes. The Norwegian Hospitality Association (NHO Reiseliv) said that there already exists a plan to make a certification scheme for the whole tourism field in Norway, and that they have just started out making a version of the well known hotel classification system. HORESTA emphasized that there is a need for developing labels that ensures the quality of tourist products, e.g. alpine centers in Norway, and beaches in Denmark. This does not have to be a star system, but perhaps a label that ensures that this is a product of high quality.

DeLZert is currently in the process of commercializing their certification schemes for e-learning providers and e-learning educational programs. They also plan to certify media companies which provide media solutions for e-learning in addition to large e-learning users. At the ISO-level there already is an e-learning management system standard in place, ISO 19796-1, in addition to the PAS 1032-1 and PAS 1068. The ISO 19796-1 is however not a certifiable standard. Professor Dr. Pawlowski from DeLCert is participating in the technical committee work at ISO, and could tell that there are currently two new e-learning standards in the same series under development. ISO 19796-3 which is supposed to be published in 2008, and ISO 19796-2 which shall be ready in one and a half years, and which will be the most important basis for future certification scheme.

10.3. Is the market for certification services driven by supply or demand?

To get a better understanding on how the certification market works, we wanted to know more about the forces behind certification schemes being offered. One of the questions we asked the certification bodies, was whether the certification schemes are driven by demand or supply? With demand we typically mean that it is the clients that approach the certification body and ask for certification, while supply driven implies that the certification body has an active market approach where they contact potential clients and promote certification schemes for which they believe there is a need for. The answers we received from the certification bodies were ambiguous. About half of the certification bodies told that it is more common that the customers come to them, while one third told that it is a combination of demand and supply. Only one sixth said it is mostly supply driven.

A common approach for certification bodies to look for new schemes to implement in their domestic market is simply to look at what works in other markets. Consequently, you could say that it is not the explicit demand in the home market which drives which schemes are being offered, but rather the demand in other countries. This gives rise to an obvious advantage for large certification bodies that operate in different national markets. Several certification bodies claimed that as the scheme builds a reputation they witness a gradual shift, moving from supply driven to demand driven.

The main reason why there have emerged so many environmental labels - more than 50 in Europe totally - is due to a demand from companies to signal their consciousness towards the environment. HORESTA, which issue the environmental label Green Key to hotels in Denmark, could tell that as the environmental awareness has increased in the Danish population, they have had a significant growth in the demand for Green Key certificates. HORESTA also points out that the fact that the United Nations Climate Conference 2009 is to be held in Copenhagen plays a significant role for the demand for environmental certification.

As previously discussed, some certificates establish a position as “de facto compulsory”. Here, the market will be demand driven (e.g. welding certificates in Latvia, telecom subcontractors in Poland and quality management system certificates for construction in Lithuania). As mentioned earlier, an international spreading effect may arise from “de facto compulsory” schemes.

Tüv Rheinland CERT pointed out that the well-known international certification schemes, such as those supplied by ISO are driven by supply, while the schemes they make themselves are driven by demand. In fact, several of the certification bodies make their own schemes based on request from specific industries. The EuRA Quality Seal, which was recently made by DQS in cooperation with the European Relocation Association (EuRA)⁴⁴ is one of many examples of such industry specific schemes provided by the certification body. These schemes are based on standards developed by the certification body in cooperation with the industry, rather than with a national standardization body.

Schemes developed by trade associations, either in cooperation with a certification body or by themselves, are the most typical examples of market driven certification schemes. The rationale for such industry initiatives could be that there are no certification schemes in the market which are customized to the industry’s needs, or simply that that the industry wants to improve its reputation by committing themselves to comply with certain criteria. The schemes from the National Federation

⁴⁴ The relocation industry is specialized “destination service providers” typically assisting employees in the process of moving from one workplace to another (sell house, buy house, travel arrangements etc.).

of Service Industries (NHO Service, Norway) and Almega Servieentreprenörene (Sweden) are examples of the latter. Both these trade associations pointed to the fact that they have had problems with some “bad seeds” in the industry, and that their members thought a certification scheme would be a nice way to screen the serious from the less serious players.

Part 3

Effects of
certification on
international
service trade

11. The effect of certification on cross border trade in services – an econometric analysis

So far, we have focused on the describing the certification activities in the Northern European service sectors, and the characteristics and prospects of the internationalization of certification activities. The main motive behind this mapping is to better understand the role of certification in promoting cross border trade in services in the region. Since many services are highly heterogeneous, it is hard for consumers to evaluate their quality. Heterogeneity imposes an inherent information problem, as consumers consistently possess less information about the service than the producer. As outlined in Chapter 3, a large number of services require simultaneity in production and consumption. Consequently, the quality of the service cannot be assessed before it is already consumed. Hence, Systematic assessments of quality and conformity can help to overcome the information problems, and this is the main role of certificates. This is also the reason why one would expect that certificates play an important role in promoting service trade. If certificates are to promote cross border trade in services, it is also required that the certificates are recognized across borders.

One central question remains to be answered: Is it possible to identify whether certification activity in itself promotes international trade in services? In this chapter, we present and empirically test an economic model which is designed to answer this question. The model has been widely applied to explain patterns of international trade during the last 40 years, and is known to have a strong predictive power. The **gravity model** first appeared in the empirical literature with the contributions of Tinbergen (1962). The standard model is usually specified as follows:

$$T_{ij} = D_{ij}^{\beta_1} Y_i^{\beta_2} Y_j^{\beta_3} E_{ij},$$

where T_{ij} is trade between country i to j , Y_i is GDP (the size of the economy) in country i , D_{ij} represents distance between the two countries and E_{ij} is a standard error term. Distance is usually interpreted as a proxy for transaction or transportation costs.⁴⁵ Certificates are designed to improve

⁴⁵ Although the model first appeared as a pure empirical relationship, several theoretical explanations have later appeared in the literature. Helpman (1987) used the good fit from gravity models as an argument

the flow of information in markets, and are thus expected to reduce transaction costs in international trade. In other words, consumers or importers face reduced information costs.

International service trade has some unique properties that make the gravity model appealing. Most importantly, the impact of physical proximity between producer and consumer should give the distance effect a strong boost. For instance, Marshall (1987) examines three geographical regions in the UK and finds that local manufacturers purchase 80% of their services by firms located in the same region.

Previously, Grajek (2004) and Blind (2006) have looked into the links between standardization and international trade. Grajek focuses on the total economy using data from ISO. He applies a gravity model for total trade between close to 100 countries. Blind narrows the focus to service trade in Europe. He does, however, not apply a model for estimating service trade flows.

In our model, we narrow the focus further. We concentrate on trade between 17 Western European countries and dive deeper into the details by studying sector specific service trade flows and sector specific certification activities. This way, the analysis becomes richer, yet also more complicated.

11.1. Data

Our data set consist of 17 Western European countries. None of the Central or Eastern European countries are included in the analysis. The reason why we chose to exclude these countries is due to what seems to be a high presence of Government purchasers requiring ISO-certifications from their suppliers. Such de facto compulsory certificate requirements initiated by the government represents an “external boosting effect” on number of certificates observed in these markets.

Bilateral export figures and the ISO data on certifications are detailed down to specific service sectors in each country. The ISO data consists of the number of ISO 9001 and ISO 14001 certificates. By matching the trade data with the certification data we were able to do a statistical analysis on service trade and service certification based on sector specific data (e.g. for the construction sector and the transport sector). To our knowledge previous impact studies of certification on trade have solely been based on national aggregated data for the economy as a whole. Thus, this study is the

supporting the new trade theory. Deardorff (1995) showed that the model is consistent with standard Heckscher-Ohlin-Samuelson theory of international trade. Thus, economic theory justifies the gravity model from a multitude of model perspectives.

first to apply a gravity model on service trade with number of certificates in different service sectors as an explanatory factor. Furthermore this is the first study to apply sector specific certification data in the analysis.

The “certification facilitation index” is an additional variable that considers how certification affects service trade. The index is unique for this study, and is based on the OECD database on international product market regulations. The database is based on answers to about 130 questions on general regulatory framework policies and specific regulation in several important sectors. The questions have been answered by the responsible governmental institution. Going through all the questions, we identified 9 questions which concerned the facilitation of certification. The index was then constructed by giving each question a subjective weight based on its direct impact on “certification facilitation”. For instance, the question regarding *whether regulators are required to use internationally harmonized standards and certification procedures wherever possible and appropriate*, was given a larger weight. This was also the case for the question on whether the regulators are required to assess alternative policy instruments (regulatory and non-regulatory) before adopting a new regulation. In table 13 we present how the certification facilitation index varies across countries.

Table 13. “Certification facilitation index” based on OECD’s international product market regulation database

Country	Index	Country	Index
Finland	1	Iceland	0.8
Italy	1	Austria	0.8
Luxembourg	1	France	0.8
Slovak Republic	0.95	Hungary	0.8
Denmark	0.9	Poland	0.8
Germany	0.9	Switzerland	0.8
Netherlands	0.9	Czech republic	0.7
Portugal	0.9	Spain	0.7
New Zealand	0.85	Greece	0.65
Norway	0.85	Belgium	0.6
United Kingdom	0.85	Ireland	0.55
Sweden	0.85	Turkey	0.5

Finland, Italy and Luxembourg are the most certification facilitation friendly countries. Among the least certification friendly regulatory regimes we find Turkey, Ireland and Belgium.

11.2. Data sources

The data used to estimate our gravity model for cross border trade in services is gathered from a variety of sources. The bilateral service export figures are from EUROSTAT. The data on ISO certificates for the service sector is collected from the ISO Survey of Certifications (2006). Service GDP figures are from the World Bank. Estimates on geographic distances are derived from the CEPII-database. The “certification facilitation index” is composed of data from the OECD product market regulation (PMR) database. The data applied are the most recent data available. The ISO-certification data is for 2006, export and service GDP are 2005 figures, while the OECD PMR database was last updated in 2003. The distance between countries is time-invariant as the countries we have been looking at are all on the same continental shelf. The numbers of ISO certificates are quite stable over time, and it should consequently not play a significant role that they differ from the export data with one year.

The equation presented below is our full gravity equation presented on log-linearized form:

$$\ln EXP_{EI} = \alpha + \beta_1 \ln\left(\frac{ISO}{GDP}\right)_E + \beta_2 \ln\left(\frac{ISO}{GDP}\right)_I + \beta_3 \ln(GDP)_I + \beta_4 \ln(GDP)_E + \beta_5 \ln(Dist)_{EI} + \beta_6 CFI_E + \beta_7 CFI_I$$

The “ln” in front of variables symbols the logarithm of the variable. Subscript “E” refers to the exporting country, while subscript “I” denotes the importing country. The abbreviations are as follows: EXP is export, ISO is the number of ISO 9001 and ISO 14001 certificates, GDP is the value added created in the country’s service sector (also referred to as “service GDP”), “Dist” is the distance between the countries’ capitals, while “CFI” is the “certification facilitation index”. The number of ISO certificates is divided by the country’s “service GDP”, $\left(\frac{ISO}{GDP}\right)$, in order to adjust the number of certificates for the size of the economy. The β s which are in front of each variable are the parameters which we estimate based on the statistical data. These values are reported in the table below.

Table 14: Gravity equation for exports of services between countries in Northern Europe

Explanatory variables	Models	(1)	(2)	(3)	(4)
		OLS	OLS	Tobit	Tobit
		Total service exports	Total service exports	Sector specific service export	Sector specific service export
Exporter Certification intensity	$\ln(\text{ISO/GDP})_E$	0.087** (2.060)	0.081* (1.93)	1.363*** (7.02)	1.115*** (6.08)
Importer Certification intensity	$\ln(\text{ISO/GDP})_I$	-0.016273 (-0.450)	-0.012 (-0.34)	-1.090*** (-5.61)	-0.664*** (-3.62)
Exporter country size	$\ln \text{GDP}_E$	0.467*** (11.740)	0.467*** (11.6)	0.222 (0.95)	0.285 (1.31)
Importer country size	$\ln \text{GDP}_I$	0.714*** (14.750)	0.710*** (15.01)	1.908*** (7.4)	1.694*** (7.11)
Geographical distance	$\ln \text{Distance}_{Ei}$	-1.092*** (-13.6)	-1.096*** (-13.59)	-0.807** (-2.3)	-0.300 (-0.91)
Exporter certification facilitation index	CFI_E		-0.664* (-1.88)		4.589*** (2.7)
Importer certification facilitation index	CFI_I		0.129 (0.37)		16.223*** (9.96)
Constant	α	-15.446*** (-5.590)	-14.905*** (-5.4)	-42.931** (-3.23)	-55.520*** (-4.48)
N		226	226	N	657
F-stats		153.79	110.74	LR Chi squared	125.23
Prob>F		0	0	Prob>Chi2	0
R squared		0.79	0.79	Pseudo R2	0.0356
Root MSE		0.684	0.68	Log Likelihood	-1695

11.3 Results

The results from our estimations are presented in table 14. We estimate 4 different models. In Models 1 and 2, we concentrate on how the intensity of certification activities in the exporter and the importer countries affect total service exports. In model 1, the certification facilitation index is excluded, while it is included in model 2.

In models 3 and 4, we estimate the effects on sector specific service trade. Consequently, the number of observations climbs from 226 to 657. Between many pairs of countries, there is no registered sector specific trade. This means that the data set is censored at 0. To solve this problem, we need a model that both explains why some countries do not trade at all with each other with a specific service sector, and if they trade, then how much they trade with each other. The Tobit model is designed to consider both these explanations, hence we employ this estimation technique in models 2 and 4. This problem is only recently approached by economists (see Helpman, Melitz and

Rubinstein, 2007) and appears to play a highly significant role in providing correct estimates of gravity equations.

In models 1 and 2, explaining total trade, the certification activity in the exporter country has a significant and positive effect on exports, while the effect of certification activity in the importer country is statistically insignificant. Similarly, the effect of the certification facilitation index is positive for the exporter and insignificant for the importer. These findings are consistent with the results reported in Grajek (2004), who also controls for possible reversed causality effects (exports contributes to increase the number of certificates).⁴⁶ Moving to models 3 and 4, the certification activity in the importing country actually affects exports to this country negatively.

How do we explain this pattern? One interpretation is that home market requirements of a specific national certificate is known to be an effective non-tariff barrier, keeping foreign suppliers out of the market, reducing imports. This pattern is however more likely to appear when one looks at purely national certification schemes. In this case, however, we have run a regression on the familiar ISO 9001 and ISO 14001 certificates. These are highly internationalized certificates and translated into all European languages. We would therefore not expect the non-tariff barrier effect to be significant here⁴⁷. Hence, we believe that the most plausible explanation relates to the pro-competitive effect of certifications. In countries where the certification activity is high, the markets are highly competitive with several large service providers that are prone to out-compete foreign service suppliers. This way, the certification intensity in a country actually contributes to less import. This is a highly interesting result, since it implies that if all countries experience a parallel increase in service sector certification activity, trade will not grow. In other words, the positive exporting country effect of increased certification is neutralized by the negative importing country effect. Notice that this neutralizing pro-competitive effect on trade does not necessarily have a clear effect on economic welfare, since the certification effect on competitiveness and efficiency in the local economy may still be strong although trade is not promoted.

Finally, notice that in model 4, the importer certification facilitation index is highly positive and significant. This could indicate that the government has a role to play as a promoter of cross border trade, both in terms of enhancing exports and imports. This could be directly related to a policy

⁴⁶ The strong positive export prediction is also consistent with the findings in Melchior (2002) which considers the effects of large sunk costs on trade, Trade in many forms of services are believed to require substantial sunk costs.

⁴⁷ It could be that a higher number of ISO certificates is an indication of a high level of certificates in general, i.e. both at the international and the national level. If it is the case that national and international certificates are compliments it is likely that the negative effect on service trade from more certification is due to a non-tariff barrier effect. This is however hard to assess given the lack of quantifiable data on national level certification schemes.

regime that contributes to the recognition of standards and certificates, both domestically and across borders.

12. Conclusions and Recommendations

Although very few standards with relevance for service sector firms become subject to real certifications, the market for certification among service sector firms in Northern Europe has a strong positive momentum. The national and international markets for certification of service companies are dominated by the generic certification schemes, like ISO 9001, ISO 14001 and ISO 27001. There is a growing tendency of certification bodies to build specialized versions of these generic certificates in order to meet specific demands, e.g. from industry associations. Our survey identifies significant skepticism towards this trend, driven by fears of a less transparent market for certificates. A majority of respondents in our survey reported that they faced competition from alternative certification schemes that are not completely compatible in one or more of the markets which they operate. This is especially so if you look at parallel certificates in different countries. There was a clear understanding among the certification bodies that this form of competition may weaken the international markets for certificates as consumers get confused by facing a multiple of different labels and certificates.

Our study has shown that service specific certification schemes are hardly ever accredited. Consequently, when the service providers want to expand across borders, there will be no formalized institute in place to ensure that their certificates are accepted in other countries. Why so few service specific certification schemes are accredited can probably be explained by large costs associated with accrediting a certification scheme, and especially for schemes for which there exists no prior accrediting experience. The certification bodies may partly be able to solve this problem by organizing in international certification networks which can play a similar role as the accreditation institute, however we believe that there is a scope for stronger involvement by the accreditation bodies in the services market in the years to come.

Our survey revealed that in some sectors firms experience that certification is required in order to be awarded contracts through public tenders. This is signaling that a significant number of certificates are treated as compulsory even though there exists no formal regulation. This might be an efficient way to facilitate the proliferation of certification within the service sector, which is in line with the ambition of the service directive, however to a certain extent such certification requirements are in direct conflict with EU law on discrimination of service providers. One should thus seek to avoid such practices.

In our economic impact study, we found that countries with a high certification intensity among service providers, tended to export more and import less. This is an important finding, since it predicts that more certification activity may not promote international trade in services. A potential explanation is that certification of service providers rather promotes competitiveness, which contributes to strengthen the ability of domestic firms to outcompete suppliers from other countries. However, it could also be that the negative effect on imports is driven by the fact that domestic certification works as a non-tariff barrier, impeding the foreign suppliers from entering the market due to the extra transaction costs of certification. Most likely the answer is a bit of both. To understand the full effects of certification, and especially the difference between national and international level certification schemes, this is a question that requires further studies.

The study also shows that a more certification friendly climate, where the government invests more in facilitating the use and recognition of both national and international certificates, contributes to increased trade. One may thus conclude that if the aim is to promote international trade in services, governments should invest efforts in order to strengthen their policy towards harmonization and recognition of certificates. In other words, the study gives support to the policy recommendations regarding certification launched through the EU Services directive, ref. Service Directive art. 26(1). However, our findings may indicate that the member states in cooperation with the European Commission should focus their encouragement towards certification schemes where there exists a system for mutual recognition across borders, e.g. accredited schemes.

The survey has identified large variations in certification costs between countries for similar certificates. Such price wedges can only exist as long as similar certificates issued in different countries are not recognized across borders. Hence, along with a more active policy towards mutual recognition, one should expect a harmonization of prices. This will be especially gainful for many of the small and medium sized companies, which dominate the sector, but which often find it too expensive to invest in certificates.

We have organized the analysis around 5 specific service sector sub groups. We expected to find that the group of problem solving services, which contain a lot of highly heterogeneous and knowledge intensive service providers, would be less involved in certification activities. However, this appeared not to be the case. Among consultants, engineers, medical service providers etc, there is a lot of personnel certification. This form of certification appears to be growing rapidly in numbers, and the certification schemes also tend to become more internationalized. Providers of leisure services are on the other hand much less involved in certification activities. This may reflect the need among these firms to maintain a high degree of heterogeneity in order to signal uniqueness. But it may also

be explained by the disproportionately large number of smaller firms in this service segment. For the providers of distributive services and assisting services, the pattern was as predicted, with a large amount of certifications, which is consistent with the relatively homogenous product pattern.

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Appendix 1: The service sector typology (5-digit NACE level)

Distributive Services					Assisting services	Leisure Services	Problem solvers		
NACE code 5 digit level									
71340	52500	51653	51250	64200	55500	55100	75140	50200	
71400	52501	51654	51300	64210	55510	55110	75200	50403	
72400	52502	51660	51310	64220	55520	55120	75210	52700	
74501	52509	51700	51320	64230	63100	55210	75220	52710	
74875	52600	52100	51330	64240	63111	55220	75240	52720	
74876	52610	52101	51340	65100	63112	55230	75250	52730	
74877	52620	52111	51341	65110	63113	55300	75300	52740	
80100	52630	52112	51349	65120	63120	55301	85100	62300	
80101	60100	52113	51350	65200	63200	55302	85111	63222	
80102	60200	52120	51360	65210	63211	55400	85112	63223	
80103	60211	52200	51370	65220	63212	60230	85113	63229	
80200	60212	52210	51381	65231	63213	62200	85114	63402	
80210	60220	52220	51389	65238	63219	63300	85115	63403	
80220	60240	52230	51390	65239	63221	63303	85116	67120	
80300	60300	52241	51400	66000	63230	63304	85117	67200	
80301	61100	52242	51421	66010	70321	63305	85118	72100	
80302	61101	52251	51422	66020	70322	74872	85121	72200	
80303	61102	52252	51431	66030	74500	74873	85122	72210	
80309	61103	52260	51432	67100	74502	85332	85123	72220	
80400	61104	52271	51433	67110	74700	85333	85124	72300	
80410	61105	52272	51434	67130	74820	92100	85125	72500	
80421	61106	52279	51441	92120	74851	92110	85126	72600	
80422	61109	52300	51442	92400	74860	92130	85130	73100	
80423	61200	52310	51450	50100	75230	92200	85141	73200	
80424	62000	52320	51460	50101	85321	92300	85142	74100	
80429	62100	52330	51471	50102	85322	92310	85143	74110	
85147	63301	52410	51472	50300	85331	92320	85144	74121	
	63302	52420	51473	50301	85334	92330	85145	74122	
	63400	52431	51474	50302	85335	92340	85146	74123	
	63401	52432	51475	50400	85336	92500	85149	74130	
	63409	52441	51476	50401	85337	92510	85200	74140	
	64100	52442	51477	50402	85339	92521	85300	74150	
	64110	52443	51479	50500	90000	92522	85311	74200	
	64120	52449	51500	51100	90010	92530	85312	74201	
	70100	52451	51510	51110	90020	92600	85313	74202	
	70111	52452	51520	51120	90030	92621	85319	74203	
	70112	52453	51531	51130	93010	92622	85323	74209	
	70120	52460	51532	51140	93030	92629	85324	74300	
	70200	52461	51533	51150	93050	92700	85325	74400	
	70201	52462	51539	51160		92710	85326	74600	
	70202	52463	51540	51170		92721	85327	74800	
	70300	52464	51550	51180		92722	85328	74810	
	70310	52469	51561	51190		92729	85338	74852	
	71100	52471	51569	51200		93020	85340	74871	
	71200	52472	51570	51210		93040	91100	74874	
	71210	52481	51600	51220			91110	74879	
	71220	52482	51610	51230			91120	75100	
	71230	52483	51620	51240			91200	75110	
	71300	52484	51630				91300	75120	
	71310	52485	51640				91310	75130	
	71320	52486	51651						
	71330	52487	51652						
		52489							

The construction sector is defined as all sector within NACE 41-43

Appendix 2: Guide for interviews with certification bodies

1. Are you a public institution, a private company, an industry organization or a private foundation?
2. What is your main certification activity (in terms of turnover)?
3. Are you accredited? In case yes, by whom?
4. Do you have subsidiaries or branches in other countries? In case yes, which countries?
5. How many employees are there in your organization?
6. When was your organization established?

Certification of services:

7. Which service sectors or what type of personnel does your organization certify (e.g. finance, tourism, consulting, construction, call centers, welders etc.)?
8. Which are the most important standards you apply when certifying services, and who are responsible for making and updating these standards?
9. How many service providers have you certified on each standard (approximately)?
10. Do most of your service providing clients have more or less than 50 employees?
11. Can you give a range on the clients costs related to the certification scheme (e.g. a small firm with 10 employees compared to large corporations)?
12. Please sort these most important standards you apply according to the following groups (!! Notice that some standards can be sorted under more than one class of standards)
 - a. Organizational standard – standard which specifies organizational systems
 - b. Product standard - standard which specifies certain criteria to be fulfilled as a result of a service providing process
 - c. Process standard - standard which specifies the process of producing/providing the service rather than the actual result
 - d. qualification of personnel – standard which specifies required skills or formal education to deliver a specific service
 - e. other
13. Are any of your certification schemes compulsory (by law or other regulation) or de facto compulsory (e.g. industry requirement or by insurance company) for your client? If yes, please exemplify in what sense they are compulsory.

Relations to other agents:

14. Are there any competing/alternative standards in the market? If yes, please give some examples of competing standards or certificates
15. Do you get the impression that your certifications/certificates related to services are recognized/accepted in other European countries (when your client operates in other countries do they need additional certification)?
16. Do you certify service providing clients operating in other countries? In case yes, in which countries and for what reason do you think they chose your certification services?

Perceptions and perspectives on certification of services:

17. Would you say that your organization has certified less, the same, or more service providers over the past 3 years?
18. Is your organization's certification schemes driven by demand (clients coming to you and asking for certification) or supply (the existence of a standard which you offer certification according to)?
19. Do you see a need/potential for more certification schemes (and standards) within the service sector? In case yes, what types of certification schemes?

Appendix 3: List of certification schemes identified in the study

Certification scheme	Service	Certification scheme	Service
En 9110/AS 9119	Aerospace industry Maintenance	VeriSelect	Customer care and satisfaction
ISO 20000	IT	DQS-TIP	Quality
EN 287	Welding	EDL-criteria	IT
ISO 9606	Welding	BS 25999	Business Continuity
ISO 3834/EN 729	Welding	Corruption prevention system	Anti-corruption
EN 15017	Funeral	PN-N -18001	OH&S
prEN 15838	Call centers	SCC/SCP	OH&S
EN 15038	Translation	Miljøfyrtårnet	Environment
DIN 14675	Services fire alarms	Hotel stars	Tourism
BOA	Extraordinary civil servants	Campingcard Scandinavia	Camping
CITO - Call center employee	Call center employee	Green key	Environment
EN 45013 /ISO 17024	Playground inspection	Fish tourism	Fish tourism
EfbV Entsorgungsfachbetriebe VO Conference	Waste disposal	Tourist offices	Tourist offices
Almega Serviceentreprenörene	Business facilitation	Natures Bästa	Eco-tourism
Ren utvikling (Dean Development)	Cleaning, facility management	ISO 20252	Market, opinion and social research
Sikker vakt (Safe Guard)	Cleaning	TEGOVA criteria++	Property appraiser
ITB - personale	Security	IPMA-standard	Project manager
ITB - personale	Building laboratory staff	EFICERT- criteria	Financial adviser
ITB - services	Service firms personnel	EFICERT- criteria	Financial planner
ITB - services	Buildings thermal insulation	LVS 343	Dangerous devices experts
ITB - services	Execution of anticorrosion works	DStV Qualitätssiegel	Tax consulting
ITB - services	Assembling of light curtain walls	EN 45013 /ISO 17024	Handling of psychological testing tools
ITB - service	Assembling of light partition walls	DNCF-criteria	Coaching
ITB - service	Assembling of suspended ceiling	NHO Service member criteria	Occupational health services
ITB - service	Assembling of raised floors	PAS 75	Print
ITB - service	Assembling of fire-emergency gates	Requirements Communications	Metering and billing
ITB - service	Assembling of doors ++	CSCS Skill cards	Construction
ITB - service	Assembling of windows++		
ITB - service	Assembling of fireproof walls	PAS	Integrated managementsystems
ITB - service	Thermal processing of concrete++	Lexel	Organization within the legal profession
BRC	Food	PAS 80	Automotive garage
ISO 22000	Food	GoodPriv@cy	Information security
ISO 19796	E-learning	RAL-gütezeichen	Physiotherapy and Wellness
EN 12522	Furniture removal	RAL-gütezeichen	Handling dangerous materials in buildings
IRIS	Railway	RAL-gütezeichen	Fire prevention construction
HACCP	Food	RAL-gütezeichen	Roof inspection
TL 9000	Telecom	RAL-gütezeichen	Removal and preperation of asbestos crematorium
IFS - International food standard	Food	RAL-gütezeichen	Cleaning of buildings
EBtrust	E-trade	RAL-gütezeichen	Wood and building maintenance
PAS 1037, Stufe Basis	Education	RAL-gütezeichen	Crane service
Artikel 3(2) RL 93/43/EWG (HACCP)	Food	RAL-gütezeichen	Leather cleaning
AZWW	Education	RAL-gütezeichen	Motor repair
CITO - VBO	Real estate	RAL-gütezeichen	Cleaning metal facades
MENTOR	Transport and distribution	RAL-gütezeichen	Chimney sweep
EuRA kvalitätssiegel	Relocation	RAL-gütezeichen	Forest and landscap maintenance
AZWW	Education beyond qualification	RAL-gütezeichen	Au-pair
CITO - Energy classification expert	Classification of house energy	RAL-gütezeichen	Bus driver
CBF seal	Fundraising	RAL-gütezeichen	Energy trade
ISO 28000	Supply chain	RAL-gütezeichen	Energy delivery
ISO 14001	Environment	RAL-gütezeichen	Private schooling
ISO 27000	Information security	RAL-gütezeichen	Wood trade
ISO 9001	quality	RAL-gütezeichen	Bus comfort
ISO 14065	Certified emission reduction	RAL-gütezeichen	Recreation facility
SA 8000	SCR	RAL-gütezeichen	Farm holiday
EMAS	Environment	RAL-gütezeichen	Recreation facility
OHSAS 18001	OH&S	PARITAETISCH E	Voluntary welfare activity
Qweb	Website	VOGrp	Good behaviour
Flower	Environment	Financial Strength Ratings	Rating of insurance companies
Swan	Environment	Certified Insurance Intermediary	Insurance Intermediary
		4TP	Professional and ethical usage of tests



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The Nordic Innovation Centre initiates and finances activities that enhance innovation collaboration and develop and maintain a smoothly functioning market in the Nordic region.

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